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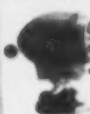
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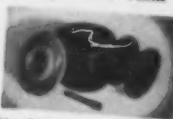
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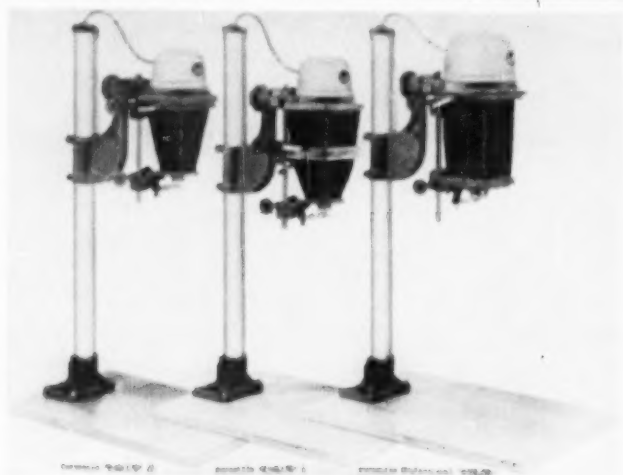
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Notes and News

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New DeJure Koolite Enlarger Series

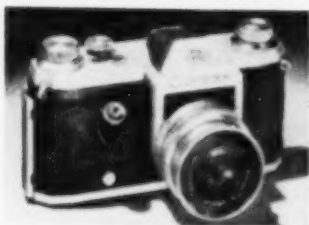
DeJure Amco Corporation, Long Island City 1, New York, now offers a new series of "Koolite" Versatile enlargers. The new line utilizes a cold cathode tubular grid lamp as a light source. DeJure officials point out that this is a distinctly different source than a circular fluorescent lamp. The new type of head may be interchanged with standard condenser heads when diffusion type illumination is desired.

Griffex, Inc. has supplied information concerning flash synchronization in the Century shutter (furnished on the new Century Graphic cameras. The Century shutter synchronizes with type "M" bulbs (5, Press 25, Press 40, 22, etc.) at 1/10th and 1/25th seconds, and with gas-filled flashbulbs (SM and SF) at 1/500th, 1/1000th, and 1/2000th seconds. The Century shutter is not intended for use with a solenoid, nor should high speed repeating flash units be connected directly to the flash contacts.

Prices on Ansco motion picture films were reduced as of December 1. Prices of Ansco Color 16mm film is now \$9.18 per 100-foot roll, tax additional. Twin-eight Hypan and Triple 8 Pan in 25-foot rolls have been reduced to \$2.68, plus tax. These latter are black and white films.

Features claimed are: 10,000 hour lamp life, uniform printing speed even with wide line voltage variation, will not heat negatives on long exposures, daylight color quality, high printing speed. The Koolite lamp uses only 30 watts, and may be used on AC current only. Prices are the same as for standard Versatile enlargers, and the Koolite heads may be obtained as accessories by present owners of DeJure Versatile enlargers at nominal cost.

You can paint with "stainless steel", believe it or not. The new product, "Liquid Stainless Steel" is a protective coating consisting of microscopic flakes of stainless steel in a vinyl medium. The color is satin silver gray, and the vinyl medium alone may be used as a topcoat for a glossy finish. Tests reported by the manufacturer indicate that the finish is highly resistant to all photographic chemicals. Like aluminum paint, it is applicable to almost any surface and no primer needed. May be brushed, sprayed, or dipped. Priced at \$3.95 a quart, \$12.00 per gallon. The Vinoplast top coat is \$2.20 a quart. Said to dry tack-free in 5 minutes, and may be baked at low temperatures. Available from Slip-On, Inc., 401 Broadway, New York 13.



Zeiss-Ikon Contax "S"

Maybe it's the time of year, but this month has brought out some rather unusual news items. Among them is the announcement of the new Zeiss-Ikon Contax S reflex camera. This 35mm camera offers life-size, eye-level reflex focussing. The new "Prisma-Scope" viewfinder takes the light rays from the camera lens and "bends" them to the photographer's eye, enabling him to focus on a brilliant, enlarged image. Parallax is eliminated and the same viewfinder

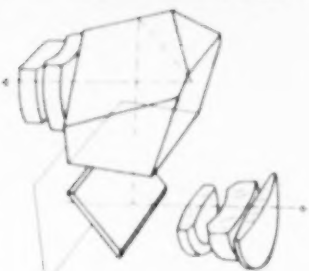


Diagram of Viewing System

works equally well on all of the interchangeable lenses. Other features include built-in synchronization, focal plane shutter with speeds from 1 to 1/1000th second. Uses regular 35mm film. Standard equipment is the coated Zeiss Biotar 1.2 lens. Priced at \$475 including tax. Manufactured by Zeiss-Ikon Camera Works at Dresden, Germany and distributed in this country by the Ercon Camera Corporation, 527 Fifth Avenue, New York.

Full scale operations have been resumed in the main plant of the Gevaert Company in Belgium, and the complete line of Gevaert products will shortly be available to the American market again. The Gevaert Company manufactures a complete line of photographic papers, films, sensitized products for

(Continued on page 52)



Ricardo Marcelino, American Society of Cinematographers

READ THIS N. Y. I.

Success Story

We point with pride to the success story of Ricardo Marcelino, American Society of Cinematographers, Manila, P.I., who graduated from the New York Institute of Photography in August, 1918.

Ricardo Marcelino, in a letter dated August 8, 1949, outlines his **STORY OF SUCCESS**. After graduation, he returned to Manila to operate his own profitable portrait studio; in 1933, he represented the Eastman Kodak Co. in the Philippine Islands; he now is technical advisor and Chief Motion Picture Cameraman for Premiere Productions, Inc. and has made 35 popular feature length films. He is now working with major U. S. studios on the technique of motion pictures in color.

Mr. Marcelino, after 34 years of professional experience in the photographic field, proudly says, "I attribute my success to **N. Y. I. TRAINING** which I was able to satisfactorily apply throughout my entire career. It is my earnest advice to anyone interested in photography—those who really aspire to make this work their career—to be sure and seek a reputable school such as **N. Y. I.** to get a solid foundation."

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A publicity still from a recent motion picture directed by Ricardo Marcelino, A. S. C.



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Notes from the Laboratory

by Herbert C. McKay

Photography as an art is an inexhaustible subject, but the art must be built upon a technical foundation. Each month Mr. McKay brings to readers of AMERICAN PHOTOGRAPHY his sound, unbiased knowledge of the various technical problems which arise.

Submerged Factors in Exposure

NOT LONG AGO I ran across an amateur who had just become acquainted with the nature of the "f" number. He had added supplementary scales to his aperture and speed scales so he could adjust the exposure critically. Asked why, he explained that two times eight squared equals 128 while eleven squared equals only 121, and that he wasn't going to be handicapped by such gross errors in making his exposures!

One is forced to wonder how many beginners labor under similar delusions of accuracy in making exposures. There are certain facts regarding theoretical exposure which we should all understand; but we should also make allowance for the vast difference between practical and theoretical application.

For example: "All lenses require the same exposure, when set to any given aperture." We know that exposure meters are calibrated for aperture without reference to any particular lens, so it would seem that this is true. What are the facts?

There is a distinct loss of light by reflection at each glass-air surface. That means that the simplest lens has two such losses, and any good modern camera lens has four or more such surfaces. In the uncoated lens the minimum loss is 6 per cent at each surface for a perfectly clean lens. As we all know, lenses do not remain "perfectly" clean for more than a few minutes, so for the lens in ordinary outdoor application, we may conservatively figure 10 per cent per surface. Just where does that lead us, for a four surface lens?

100 % incident light, less 10% = 90 %
90 % incident light, less 10% = 81 %
81 % incident light, less 10% = 72.9 %
72.9 % incident light, less 10% = 65.61 %
There reaches the film less than two-thirds of the original light which fell upon the lens! And this is not an exaggerated example. In fact 60 per cent from an uncoated lens is quite good.

If we assume that a coated lens under similar conditions has a loss of 5 per cent per surface including the dust films, (and that is excellent performance), we have, by the same reasoning, a usable light which represents about 82 per cent of the original.

Inasmuch as some lenses have six and eight surfaces, and usually have an easily discernible film of oil and dust, it is not at all uncommon for a loss of two-thirds to exist, making the available light only one-third of that which originally fell upon the lens. With a range from 1/3 to 4/5 efficiency, a variation greater than 1:2, it can be seen that lens performance is a factor which cannot be ignored. When to this is added the yellowish tint of many lenses, the factor becomes even greater.

Then there is the question of filters. The filter is not usually given the care bestowed upon the lens itself. The filter is cleaned by a brief rub with a handkerchief, but just the same it adds two more surfaces. Even without any color at all, and assuming zero absorption within the filter, the surface reflection reduces the 65.61 per cent transmission to 53.15 per cent. This despite the fact that many amateurs allow no increase even for the lighter yellow filters.

A Compensating Factor

Between lens shutters are usually calibrated in fractions of a second, and these calibrations are accepted at face value. The slow speeds, up to about 1:25 are usually sufficiently accurate, but above that, even in the fine type of shutter, speeds become less and less dependable. At 1:500 the loss usually exceeds 25 per cent. It must be remembered though, that this depends upon mechanical factors and is not subject to a fixed minimum by natural law, as is the surface reflection. However, let us assume a loss of 20 per cent at a speed of 1:250. This means that the exposure, with a filter, has been raised to an equivalent of about 64 per cent, or practically, the loss of shutter speed just about compensates in this one example, for the loss incident to using the filter.

Of course the shutter loss depends upon the speed at which it is operated, and upon the type of shutter used. Most shutters lose efficiency in very cold weather. These factors are all variables, and can be determined only by careful measurement with testing instruments. Such tests are somewhat costly, and the average amateur does not have the equipment with which to make them.

Importance of These Factors


It would seem therefore that the amateur must just do the best he can in the face of insuperable difficulties. That is not at all true! All of these variables are insignificant. In practical work of the usual amateur type they do not mean anything at all. The mere fact that thousands upon thousands of casual camera users continue to get good pictures should be sufficient evidence of this truth.

As a matter of fact, these factors, if important, would make a good exposure a practical impossibility, because, while the amateur uses a meter, very often he does not know how to use the meter correctly. Then, too, meters are not wholly perfect either.

So, it is perfectly fine to spend a cold, sleepy evening discussing exposure factors and the fine points of theory, but when you get out with your camera, just follow your usual routine, forget all of these disturbing elements, and you will bring back your usual quota of pictures.

After all, the whole purpose of photog.
(Continued on Page 58)

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Next Month

APFTER READING all the articles and features for March *AMERICAN PHOTOGRAPHY* together, we can hardly wait for the issue ourselves! It's an issue that photographers will want to read closely and keep for reference for a long time to come.

First of all, it's a special STEREO issue, starts off with a corking good article on the Stereo Realist camera by Arthur Judge. Mr. Judge has an international reputation as an authority on stereoscopic photography. His analysis of the Stereo Realist is completely unbiased and factual, not like the publicity articles on cameras which are frequently seen. This leads right into an informative article on stereo projection, plus miscellaneous stereo information which you'd like to have under your scalp. Stereo fans and photographers generally will find this an absorbing series of articles.

After you've passed a pleasant hour on the subject of stereo, you'll start on an exceptional story on figure photography by Eugene M. Hanson (author of our new book "Glamour Guide"). The subject is skillfully handled, and regardless of your attitude toward photography of the nude you'll find this an interesting subject. Continuing through the pages of the March issue the next article covers "Focus for Pictorial Effect," by Raymond Hanson (no relation to Eugene). Not all photographers realize the importance of proper focussing to accentuate the center of interest in a photograph. This article will help beginners a great deal and at the same time provide food for thought for the more accomplished.

Our own "Pop" Jordan has prepared the next bit of prose on the subject of suggestion for spring photography, in addition to "Pop Sex".

This ought to give you a quarter's worth, but to make it a full measure Arthur Hammond writes a worthwhile article on photographing Florida. Plus a "how-to-build-it" — this month a convertible viewer for transparencies. Plus Herbert McKay's inimitable "Notes from a Laboratory" (excellent material for color photographers in March). Plus Frank R. Fraprie's sage commentary on problems photographic. Plus the other regular features you've come to expect in *AMERICAN PHOTOGRAPHY*, such as the Salon section with its 15 outstanding prints.

A word to the wise . . . dealers have been running short of *AMERICAN PHOTOGRAPHY* these past few months, in spite of increased editions here. To be safe, reserve your copy at your favorite camera store or newsstand now.

ON OUR COVER

"Waterfront", a Kodachrome by Edmond Weston. Photo by courtesy of the Eastman Kodak Company. Taken on 1/3 second, f/22.

American Photography

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GENERAL



ELECTRIC

Editorial Comment

J. C. Bridges

Credit Where Credit Is Due

RECENTLY I READ a comment by a noted photographer to the effect that photographers in the United States have reached an unparalleled height of perfection in the techniques of photography, but that their artistic accomplishment is sadly lacking. Possibly this photographer is correct in his charges on the lack of artistic imagination in our photography, though the point is open to much debate. But that's a discussion which started with the beginning of photographic art and probably will continue as long as human beings remain such.

The comment on technical accomplishments is something else again. I can't lay great claims to familiarity with the photographic knowledge of the rest of the world but it is rather obvious that the proficiency of amateur and professional alike in this country is high. It is a demonstration first of deep interest in photography itself, since no man spends the time and energy needed to perfect techniques without the stimulus of abiding interest. The seriousness of purpose evidenced is, in all respects, important to photography.

Above and beyond this, technical skill has brought the enjoyment of camera art as a means of self-expression (to borrow an expressive phrase from Dr. Thorek) to thousands of individuals. For technique is the foundation upon which art must be built. That these thousands enjoy their artistic expression is enough. Whether or not the type of art they produce meets with the approval of great names is of little consequence, for too few of the well publicized photographers have produced enough immortal art to lend ponderous weight to their argument.

However, it is not my purpose here to continue a controversy which has been argued by more capable proponents, but to point out that the photographic magazines in this country deserve much credit for the knowledge which the average photographer possesses. There is little comparison possible between foreign and American photographic magazines, as to the amount of educational literature which is made available to everyone. This

constitutes no reflection upon our friends who publish journals in other countries, since the matter of finances is eminently involved. That advertising revenue here makes our large and beautiful photo publications possible is a fortunate reflection of American wealth. But, at the same time our magazines have sold the idea of photography to more and more people, helping to create the market which permits money to be spent in advertising.

Yes, the photographic magazines of this country merit the commendation of all. In no other place does 25¢ buy so much education and entertainment. It is self-evident that the journals on the market have different approaches to photography and separate roles to fill . . . not always in agreement. But I frankly say that I have read them all for years with pleasure and profit, and intend to continue to do so.

To return to the comment which triggered this burst of words, I take my hat off to the American photographers who have developed the technical skill, may they continue to enjoy their art without too serious regard for the voice of prophets. And my hat is off to the exceptional quality of American photographic publications. May they, each and every one, continue to serve and to prosper!

Last month it was announced that Bernard Alferi's article, "Conveying the Illusion of Motion" would be published in February. We regret to say that Mr. Alferi's article will be postponed for a few months due, as the radio stations are wont to say, to technical difficulties beyond our control.

For the past several days the office has looked more like a studio than a publishing concern. Sam Bridges, AMERICAN PHOTOGRAPHY's production manager, was assigned the task of photographing all of the books which we publish or stock, for winter and spring book catalogs. So Sam set up shop in the reception room and went to work. In case you're wondering what a photography magazine does for a camera, we'll report that work such as this is done with a 4x5 Graphic View and Gundlach convertible lens. At the moment we have in use here (mostly for illustrating our other publications) a 4x5 Speed Graphic, a Ciroflex, an Eastman Reflex II, and a Polaroid Land camera.

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Most amateurs . . . and some professionals . . . consider retouching to be a difficult series of processes, requiring skill and practice. To be sure, the photographer who follows the suggestions in this brief course will not compete with skilled retouchers in two weeks. But, everyone can achieve enough retouching technique to make marked improvement in his pictures. Mr. Swahn's directions are complete, the supplies (illustrated at the right) are inexpensive and easily obtainable. Try retouching . . . yourself . . . this week!



You can learn retouching

An AMERICAN PHOTOGRAPHY feature by Harold G. Swahn

WHY SHOULD the photographer have to retouch his negatives? The purist puts the retoucher in the class of a nature faker or liar. Yet there are few purists who would object to printing in part of a print. They will readily use filters which, we all know, can cause a profound difference between the original subject and the finished print. If such modifications are going to be used, why not work right on the negative? It's not as difficult as you might think.

Without doubt, the hardest part of retouching is to know *what* to retouch. Technical defects, such as pin holes and small scratches, will naturally be corrected. This requires no judgment on the part of the retoucher. The skilled retoucher can do much more than that. By lightening or darkening certain parts of the print, composition may be improved. A change or modification of a line or outline, may work wonders. The highlights on a flat negative may be built up with a corresponding increase in contrast. This may be done only on the center of interest, so that it stands out. On the other hand, deep shadow areas in a contrasty subject can be made more transparent—in other words, the contrast can be cut. This does not have to be done all over the negative; a softer grade of paper would do that. With retouching, you can control the contrast right where you want to. A wealth of detracting details may be blended into the picture, with a resulting improvement in the finished print.

If the same negative were placed before a number of expert retouchers, the final results would be quite different. The amateur and the professional, equally adept, look at the problem from different points of view.

The pictorial photographer may well proceed as follows. Make as good a print as possible from the negative. Study it. This should be done, in the case of a careful worker, over a period of days or weeks. If minor corrections seem needed, possibly dodging may solve the problem. If retouching is needed, however, decide what to do, and also figure the easiest way for you to make the modification. If you are not used to retouching, it is best to make only slight corrections at first. In any case, do as little retouching as possible to make a successful print. Remember that retouching is a means to an end and not an end in itself.

The professional photographer faces a different problem. His retouching sells the portraits to the cash customers. He will not have time to study proofs the way the pictorialist does. He most likely will not do the retouching himself, but have a retoucher do it for him. The retoucher never saw the person whose negative he is working on, but goes through the standard motions of cleaning up the complexion, removing lines around the eyes, double chins, moles, and so on. Is it any wonder that the word "retouching" has come to have an unpleasant sound to the pictorialist or serious amateur? The woman who is getting on in years will not pay good money for pictures that prove it. It is up to the professional photographer to flatter. (And don't think that men are less willing to admit that time marches on!)

As an approach to retouching look at the portraits on display by the better portrait photographers in your neighborhood. See if they are really sharp. Think how they would be rated if entered in a print criticism at your camera club. You can learn a lot by studying the work of others and avoiding their mistakes.

You may think that if you never do portraits, you will never have to retouch. However, a certain amount of work may be done to advantage on other types of pictures from seascapes to still-life.

Since a photographic print consists of a series of tones from light to dark, on a piece of paper, retouching consists of changing these tones. To make them print lighter, density must be added to parts of the negative, and, conversely, to make them print darker, some of the density must be removed. This must be accomplished in such a way that it is impossible to detect the changes, in the final print.

Negative size enters here. I know that 35 mm negatives have been retouched, but I can't do it. $2\frac{1}{4} \times 3\frac{1}{4}$ can be worked on with care, while 4×5 and 5×7 are ideal. This is assuming that an enlargement of at least 11×14 is to be made. Naturally, as the magnification of the negative increases, the fineness of the retouching must increase also. A big negative is easier to retouch only in the sense that it does not have to be enlarged as much to secure a certain size print.

Make a Larger Negative First

If you have a small negative that must be retouched, it is best to make an enlarged negative—say 4×5 or 5×7 —and do the retouching on that. So many amateurs use small negative sizes today, a brief description of the making of an enlarged negative may be helpful. One method is to enlarge the negative on a semi-matte paper to, let us say, 11×14 . This print can be worked up with dye and pencil as described below, and then copied on a 4×5 or 5×7 film. In copying, a soft negative, similar to the original negative, should be made. Use a portrait type of film rather than a commercial or process type. This enlarged negative is retouched in the usual way.

It is even better to enlarge the small negative on to a piece of 4×5 or 5×7 portrait cut film. This should give a soft positive transparency, with full detail in the shadows and highlights. This transparency may be retouched as described below with pencil and dye. Anything that you darken on the transparency will be darker in the final print, since it is a positive transparency. Some people go on to think that any image on a piece of film is a negative. This is not so, and we are talking here about a film positive. From this film transparency, the duplicate negative is made either by contact or projection, once again using portrait type film. The retouching of this duplicate, enlarged negative, is done in the manner described below.

If the original small negative has faulty contrast, the enlarged negative can be made to correct this. A contrasty original may require shorter development of the transparency. A thin or flat original negative may be pepped up with longer development. In extreme cases, commercial film may be used for the transparency.

In retouching a negative, you must always keep in mind that adding density to the negative lightens the print, any decrease in density of the negative causes a corresponding darkening of that part of the print.

To add density to part of the negative (lighten the corresponding part of the print) the following methods may be used:

1. Paint a dye solution on the negative.
2. Scotch tape the negative, emulsion side out, on a piece of ground glass (or ground glass substitute), and draw on the ground glass.
3. Draw right on the negative with a pencil.

Since work done by any of these methods can be removed easily from the negative without damage, these devices are recommended to the beginner.

To reduce the density of part of the negative (darken the corresponding part of the print) some of the silver must be removed from the negative. This may be done by:

1. Solution. Farmer's reducer applied locally.
2. Abrasion. Use a knife to shave the emulsion down or use an abrasive to wear it down.

Since these methods actually remove silver from the negative which cannot be replaced, considerable experiment is suggested on discarded negatives before trying them on a good negative.

Negatives which have been hardened excessively will be difficult to retouch. They will not take the dye well, nor are they easy to etch. It is best to retouch such a negative with the aid of ground glass or ground glass substitute.

After careful study of the negative, you may decide that certain areas, such as part of the sky, or some of the foreground are too dense (print too light). In this case, some of the silver that makes the negative image is to be removed. Dissolving it out with chemicals is a convenient method. If the entire negative is treated, the process is called "reduction"; since we are going to work on part of the negative, we call this "local reduction".

As far as the chemical action is concerned, the logical time to do local reduction is right after development and fixation of the negative, since at that time, the emulsion is open and receptive to other chemicals. However, it takes considerable experience to know what to reduce and how much to reduce without having made a print of the negative. It is suggested, therefore, to proceed as follows:

Retouching by Local Reduction

First of all, soak the negative in a tray of water for about a quarter of an hour. This allows the gelatine to swell so that the chemicals will work evenly. If there are finger prints on the negative (Heaven forbid!), you will notice that the water will be repelled from them. A few drops of ammonia water should be added to the tray of water and the soaking continued for another ten minutes. Next, transfer the negative to a tray containing hypo solution, and let it soak for a couple of minutes.

The bleach bath (Farmer's reducer) contains potassium ferricyanide. This must not be confused with potassium cyanide which is a deadly poison. The solution of potassium ferricyanide reacts with the silver image forming silver ferrocyanide, which is dissolved out by the hypo solution. I use a stock solution which is the same as the bleaching bath used in toning prints.

Stock Bleach:

Potassium ferricyanide	20 grams
Potassium bromide	20 grams
Water to make	500 cubic centimeters

For use, dilute with water:

Stock bleach solution	1 part
Water	10 parts

The negative which has been soaking in the hypo bath, is placed emulsion side up on a piece of glass, which should be considerably larger than the negative. Using a swab of cotton, wet with the bleaching solution, go over the area to be reduced. Keep the cotton moving. After a few seconds, return the negative to the hypo bath. As a result of the first treatment, practically no reduction can be seen. But by alternately swabbing with the bleach solution and placing



An example of simple dye retouching for print improvement. In the photograph to the left, the scarf and dress details are too dark. Right, application of dye to the negative results in lightening the scarf and costume. Note also that the shadow cast at the neckline by the small lapel has been eliminated by application of dye to the negative.

in the hypo bath, reduction gradually will take place. The reason that the work has to be done slowly is to avoid marks on the negative. For small areas use cotton wrapped around a wooden splint ("Q Tips"), but be careful not to let the wooden splint touch the negative. The bleach solution will readily run down the negative, bleaching as it goes. Therefore, avoid having too much solution on the cotton swab. It is a good idea to move the negative around so that the excess bleach solution cannot get on part of the picture area where it might do damage. For example, in working on a dense foreground, the negative will be held on the sheet of glass in a normal position, but when working on a dense sky, turn the negative upside down, so that the solution will drain right off.

By working with a strong solution you will get through in less time, but may get streaks which are impossible to remove. It is better to do little bleaching than too much, since it is impossible to replace the silver once it has been removed.

Local reduction usually takes several minutes. If you have a very dense negative, you will find that the bleach bath stops working after a time, so throw it out, and dilute some more from the stock solution.

After local reduction is complete, the negative is still saturated with hypo. The negative must therefore be washed for about half an hour and then dried.

Working at the Retouching Desk

The other retouching methods to be described are per-

formed on the dry negative at a retouching desk. There is no need for an expensive desk. Montgomery Ward has an inexpensive one in its catalog. They are also quite easy to make if you are at all handy with tools. All you need is an 8" x 10" sheet of glass set flush in a wooden frame. A piece of $\frac{1}{4}$ " plate glass is worth the difference in price since it will have no defects. While many commercial retouching desks are designed for use at an angle of 45°, a steeper angle of about 60° will prove more comfortable.

The light that comes through the negative must be diffused. Ground glass should be avoided, since the grain of the glass is bothersome when doing fine work. Opal glass is good but it is more expensive. An ideal method is to look through the negative and plain glass at a piece of dull white paper such as blotting paper. This is the kind of lighting that is suggested for viewing Kodachromes. The light from a daylight blue bulb will be easy on the eyes. A fluorescent bulb is excellent.

The next point is important if you wish to avoid eye-strain. The only light that enters your eyes should be the diffused light coming through the negative. All other light must be shaded. The room should be dark. Although the glass on the retouching desk is about 8" x 10" in size, mask this down with black paper taped to the under side of the glass.

Local reduction, described above, is used to reduce the density of parts of the negative so that they will print darker in the finished print. The next process does just the

opposite — a dye is used to add density to parts of the negative so that they will print lighter.

The most commonly used dye is New Coccine, made by Ansco. This is a water soluble red dye, readily absorbed by gelatine, and readily washed out of the gelatine if need be. Make up three solutions of the dye as follows:

Solution 1	
New Coccine	1½ gram
Water	30 cc.
Solution 2	
Of Solution 1	40 drops
Water	30 cc.
Solution 3	
Of Solution 1	20 drops
Water	30 cc.

These solutions last for months. A small bottle of the dry dye will last you for years.

If available, a few drops of wetting agent may be added to each of the dye baths. This will minimize the formation of drops or tears which cause uneven dyeing. (Your photo dealer can supply this.)

Fasten the negative to the glass of the retouching desk with short pieces of Scotch tape. The negative emulsion faces the glass. Use a No. 3 red sable brush to apply the dye. Starting with the most dilute dye solution, (Solution 3) apply the dye with a fully charged brush. Work the dye around with the brush for a few seconds, then wipe the area surface dry with a wad of damp cotton. Again apply the dye and wipe off excess. As in local reduction, this is a slow job. If the dye does not seem deep enough, use some of Solution 2. Avoid using so much dye on the brush that it runs down the negative.

It is difficult, at first, to know how much dye to apply, since the dye is red while the negative image is black. Using a glassless negative holder in the enlarger, it is quite simple to make a small enlargement as the work progresses. Or you may view the negative with a green filter (X 1 or X 2) which will cause the red color to appear black. Back

grounds can be worked in, hair can be lightened, shadows made more transparent, and so on. If you make a mistake and apply too much dye, or leave a streak or tear drop, it is a simple matter to wash all the dye out with water and start again.

Spotone can be used in place of New Coccine. It is much easier to match but in case of a mistake, it is more difficult to correct. Instead of using a brush, small cotton swabs on the end of a wooden splint can be used for working on large areas.

When buying the red sable brush, make sure that when dipped into water, it will point itself. A good brush will do this. Once you have such a brush, protect the point as if it were the point of your fountain pen. Have a small box for it where no part of the brush or hairs comes in contact with the box. A good brush should last for many years, so it pays to buy the best.

After dyeing, the negative must be dried before other work is attempted.

I recommend the dyeing of negatives to the beginner, since it is simple, and will not harm the negative.

Retouching With Pencil

Another method of adding density to parts of the negative so that these sections will print lighter is to work on ground glass or a substitute. The process is simple. The negative is fastened with Scotch tape to the smooth side of a piece of ground glass, emulsion side out. Then you work with a pencil or a paper stump and powdered graphite, on the ground glass. Since ground glass of sufficiently fine grain is expensive, and nobody, today, would dream of grinding the glass by hand, a substitute is often used. This is done by binding the negative, emulsion side out, to a piece of plain glass. On the opposite side of the glass bind some material with a "tooth" similar to ground glass. Suitable materials are:

Traceolene, Transolene Co., Barrington, Ill.
Lumarith, Celluloid Corp.

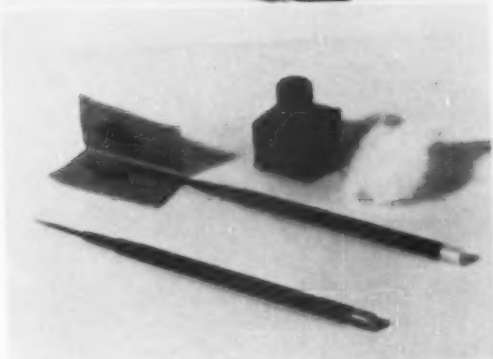
Drafting supply houses and some photo stores can supply

Print improvement through pencil retouching on Traceolene. The original (left) shows facial details too dark and sky monotonous. Center print has more life, facial details better, legs show more modelling, clouds have been added. At the right is a print from the Traceolene sheet used for pencil retouching. Retouching is simply a form of dodging applied to smaller areas than is possible on the enlarging easel.





ABOVE: Magnifying glass aids fine work on retouching stand. Such stands may be bought for a few dollars, or can be made at home easily by any handy man. Note how illumination is diffused from behind the stand. RIGHT, top: The retouching sheet for the correction shown on page 14. Some work could have been done on ground glass or directly on the negative after application of retouching dope. RIGHT, bottom: Pencils should be kept very sharp. Twirling between a folded bit of sandpaper helps keep a proper point. Retouching dope in bottle is swabbed on negative, allows pencil work to be done directly on negative.



these or other usable materials.

Small spots or areas, as well as lines and outlines can be touched up with a pencil. Work carefully, but there is quite a bit of latitude since the retouched image is diffused by the ground glass. In addition there is a space between the ground glass and the negative. For larger areas, such as part of a background, a home-made cloud in a bare sky, a mass of hair, masses of distant trees, and so on, a "stump" is used. Stumps made of paper or chamois skin can be obtained at an artist supply store. Powdered graphite and chalk used with them are purchased there too. To use the stump, pick up a small quantity of the pigment on the tip of a knife and spread it on a piece of white paper or cardboard. Rub the end of the stump in the pigment, try it out on a clean piece of paper, and then apply to the ground glass substitute. If you make a mistake, simply discard the ground glass substitute and start over again.

Using the same method, it is possible to darken certain areas on a print by applying a thin coating of mineral oil to the proper part of the ground glass substitute. This increases the transparency of the matt surface and so causes it to print darker.

If you have done your retouching on a ground glass or similar material, do not stop down your enlarging lens. If you do, you will bring the matt surface into focus and it will give a grainy effect. Condenser enlargers are more likely to do this than diffusion enlargers. If the matt surface does show, separate the negative from the sheet of glass to which it has been taped, and add two or three more

sheets of plain glass. Register the negative and the retouching again, and rebond with Scotch tape.

For Finer Corrections

Dyes and work on ground glass cannot be relied upon to correct lines and small areas. Retouching upon the negative emulsion must be used for these. To add density to the negative so that the corresponding part will print lighter, pencil is used.

Three pencils will be sufficient. They should have long leads held in mechanical holders so that the lead may be retracted and so protected against breakage when not in use. The three grades are:

- 3H This is used for delicate work. Since it is hard, it is best for the beginner to start with this grade.
- HB Most of the work is done with this pencil.
- 2B This one is used occasionally for heavy work. It is useful for correcting pinholes.

Try to buy the pencils in different colors so that you can tell easily which pencil is which.

The lead is sharpened to a fine tapering point at least an inch and a quarter in length. To do this, take a piece of fine sandpaper, about 2 inches on a side, and fold it in half. Expose about 2 inches of the lead. Place the lead in the fold of the sandpaper and, holding it between the fingers, gently move it back and forth rotating the lead slightly at the same time. Work with about 1 1/4 inches exposed.

Lead (graphite) will not adhere to the emulsion of the negative. Therefore, it is necessary to coat the negative with a medium that will give it a tooth. This is called re-



The original print (left) is pleasing, but the lines below the cheek bones are too pronounced. Slight retouching produces the print to the right. Note that the lines have been softened without affecting the characteristics of the face. Retouching should be withheld sparingly to avoid artificial looking results. Better too little than too much, says Mr. Swahn.

touching "dope". A few drops are applied to the negative and then rapidly spread over the part of the negative to be retouched with a tuft of cotton. All camera shops carry this item.

Unless you have unusual eyesight, you will need a reading glass as you work with the pencil. Lightly touching the lead to the doped emulsion, move the lead around in an irregular way. Gradually fill in small spots or lines. This requires patience. It may easily take 45 minutes to work up a head on a 4 x 5 negative so that it can be enlarged up to 11 x 14. Don't hurry. Don't strain your eyes. If your eyes hurt you, the chances are that you have either too much or too little light. Take it easy; you should be perfectly relaxed as you retouch. I like to listen to the radio while I work.

Don't work too long in one part of the negative. Pick out an obvious defect, such as a loose strand of hair and go to work on it. As you work, you will notice several minor defects nearby. Ignore them. Pick out another obvious defect, such as the sharp edge of a shadow that must be softened. Move around the negative, and as you work, remember that you are trying to make the negative more harmonious by blending the parts of the picture together. You should avoid *creating anything* in the picture by retouching, since it will invariably look artificial.

After the initial plunge, many beginners find that retouching opens up such boundless possibilities that they don't know when to stop. This leads to the danger of over-retouching. When in doubt, don't retouch. Your photographs will be more natural as a result.

It is wise for the beginner to make test prints of the negative now and then to check progress. If you make a mistake and apply too much lead, simply reapply the retouching dope, go over it lightly with a tuft of cotton, and the negative is back, ready to start the work all over again. The negative, in any case, is unharmed.

Retouching by Etching

Because of its difficulty, I have left etching for the last. In order to decrease the density in some parts of the negative so that they will print darker, these parts are shaved down with a very sharp knife. This is etching. In the hands of an expert, the hair can be worked on, eyelashes accentuated or added, double chins removed, superfluous highlights in the eyes removed and so on. However, one false stroke, and your negative is ruined.

For successful etching, the negative must not have been hardened excessively. A plain hypo bath acidified with sodium bisulfite is recommended. Etching is *always* done before the negative has any dope applied to it.

Any large photographic supply store will carry etching knives. Get a good one. Instead of the regular etching knife, a scalpel may be used. It should be treated with the same care that you would give to a fine razor. At the same time that you get the knife or scalpel, be sure to get a small oilstone to keep it sharp. You cannot etch well unless the knife is razor sharp.

Practice liberally on a spare negative. Remember that you are not going to scratch the negative, but shave it down. The amount of emulsion removed at each stroke should be barely perceptible. If the emulsion is too hard, or if Farmer's reducer has been used on the negative, it will not be easy to do this evenly. After sufficient practice you will be ready to work on a good negative.

Abrasive pencils and abrasive paste are also available. These consist of fine abrasives which are used to "wear down" part of the emulsion. These substances work quite well if carefully used, but I recommend local reduction in preference.

Since etching is used to darken small parts of the print, the amateur, who is not interested in mass production,

will be able to do practically the same thing by working on the print with "Spotone".

In spite of all your care, the retouching may show up in a distressing way in the enlargements. A condenser enlarger is more likely to do this than a diffusion enlarger. This is due to the "Calleet effect". Since etching leaves the emulsion rougher than before, it may show up, and pencil lines, unless done with care, may be noticeable. If you use a condenser enlarger, convert it, temporarily, into a diffusion type. This is easily done by placing a piece of matte celluloid between the condensers. This slows up the machine, but helps the retouching. A texture screen, available in various patterns from Defender and Ansco, placed over the sheet of enlarging paper will help. The use of a rough enlarging paper will make retouching less obvious. Diffusing the light leaving the enlarger lens with a diffusion disk or a couple of thicknesses of black net will soften it down.

Remember this always about your work: retouching is a queer process. After you have spent so much thought, time and skill on a negative, the proof of your work is that it goes unnoticed!

Now that you have read the article, try your hand at retouching. Your favorite camera store or department is featuring retouching supplies this month . . . they'll have everything you need in stock. Below are the essentials, listed under the headings of the various types of retouching. The cost of the entire outfit should not exceed \$10.00 unless you purchase a more expensive retouching desk. And you can get by for \$5.00 or less for the fundamentals.

While Mr. Suehn's article is complete and accurate, you may wish more detailed information on the subject. There are books which will help you to perfect your retouching techniques. One of the best is "The Art of Retouching" by Arthur Hammond (American Photographic Publishing Company); and there is a great deal of useful material in "Better Negatives" (The Camera, Inc.) Some of the subtler applications of retouching are described by L. Whitney Standish in this issue of AMERICAN PHOTOGRAPHY. See the article which begins on page 26.

Materials You Will Need:

Ground glass work:

Tracerolene or Lumarith
Pencils, 3H and HB
Powdered graphite
Cotton
Stumps, paper or chamois—art supply
Mineral oil

Pencil work on negative:

Pencils, 3H, HB, 2B or Tek retouching pencil set
Fine sandpaper
Retouching dope
Magnifying glass

Etching:

Etching knife
Abrasive paste
Oil Stone

Local reduction:

Sheet of glass larger than the negative
Hypo

Potassium ferricyanide (or prepared reducer)

Cotton
Print trays

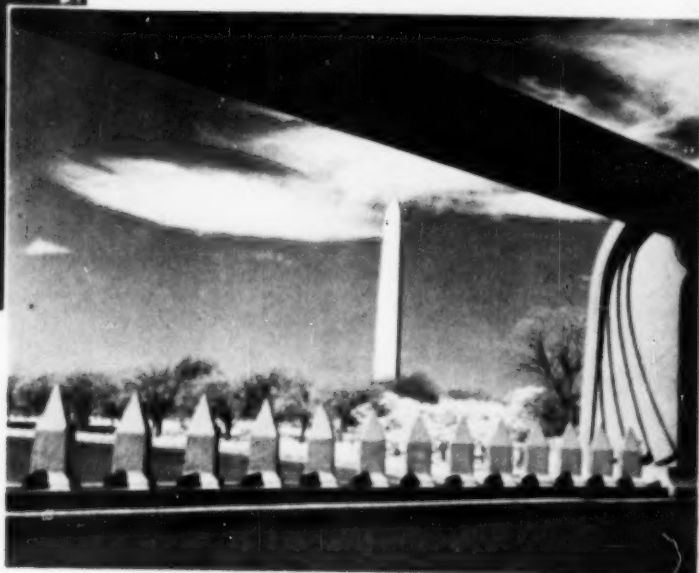
Dye retouching:

New Coccine
Dropper bottles—drug store
Red sable brush
Cotton
"Q" tips
Spotone set



Pictures of boats are always interesting, but this view of Gloucester harbor is doubly effective because the foreground gives a three-dimensional effect. Without the frame, the boats would lose much of their interest. As reproduced here it is an exceptionally worth-while shot. Try it yourself!

The right "frame" or viewpoint can add much to your photographs, whether they are vacation snapshots or serious pictorials. Note how much is added to the view of the Washington monument below by the foreground. Not only is a distinct feeling of depth and perspective evident, but the iron pickets repeat the main motif of the monument. Without the foreground, the monument would be a meaningless light streak in the picture. The picture leaves no question as to the size of the memorial and its distance from the observer. Framing such as this is a trick which everyone can use to make more effective photographs.



be on the lookout for an outlook

by Arthur L. Schoeni

Sound, sensible advice for all photographers: beginners and old-timers alike. All too often we snap the shutter without taking time to study the subject to determine whether we have the best outlook on it. Photographs being two-dimensional on a surface, need perspective to make them appear as if they had depth. A foreground emphasizing the central subject is one of the best ways to accomplish this. Arthur L. Schoeni, editor of NAVAL AVIATION NEWS, gives us some excellent pointers in this article. Illustrations are by the author.

UNDER THE POLICE SPOTLIGHTS at the night lineup, he was the toughest-looking character there. Beetling brows, thick lips and unkempt hair and clothes made him look like the movie-land version of a pug-ugly.

After one of the unseen "victims" out in the blackness behind the footlights identified him as the fellow who had passed the counterfeit \$20 bill, the police took him back to their "inner sanctum". They went through his pockets, his purse. From the latter they pulled several new-looking 20's without a wrinkle except where the purse fold had hit.

"Where'd you get these, Blackie?" asked an officer.

"I don't know nuttin' about 'em! A guy just gave 'em to me. I wanna see a lawyer - I been framed!"

Maybe Blackie was and maybe he wasn't, but to be framed in the underworld is a different kind of a trick than framing as employed by a photographer.

The art world, long before the first stumbling steps of photography a little more than 100 years ago, recognized

the two-dimension handcuffs it works under. A painting or picture is flat—and as such lacks the realism a sculptor has and a painter or photographer wants to achieve. To gain this aim he has to have a third dimension—depth—or at least an illusion of it. Painters can attain this effect slightly by daubing on their paint so heavily it forms peaks and ridges on the canvas. But not so the photographer.

To give his model's face roundness he has to depend on correct exposure and lighting to provide the gradation. A thick negative is quick death for this feeling and too thin a one is almost as bad.

Another way to achieve third dimension in a photograph is to employ a frame—position a nearby object so that the photographer's camera, and the viewer's eye, seems to be peering out from under some trees, a roof, through a window or between some dominant foreground objects. It is not a new idea to photographers. It can be used to improve an otherwise flat distant scene which lacks a center of interest.

By neatly framing the mountain peak through the branches of a long-needle pine, a much more attractive scene can be achieved. And the frame, whatever it may be,

does not steal the show from the peak. Of course, the photographer may not want to frame a vast expanse of wheatlands with its tiny farmhouse or string of grain elevators. He may be striving to give his picture the feeling of wide-openness and empty prairies. Putting a frame around it would give the feeling of being penned in by trees or a building. But few are the scenes that cannot be improved by shooting through, over or under a nearby "frame".

Take the photograph of Saanich inlet, a sky-blue arm of salt water near Victoria, B. C. Shot from the scenic Malahat drive above it, the inlet is in itself no particular picture. But move the camera over a few feet and photograph the inlet through those two colorful Indian totem poles—and Saanich inlet shines more by reflected picturesqueness. The totems not only keep the eye from wandering off the picture at either side, but they give the picture vastly more feeling of depth.

The "frame" can be on both sides of a picture or it can completely encircle this center of interest. The eye cannot get out of the picture, top, bottom or at the sides, and goes right to this center—in the case of the shot taken through the decorative bay window in the Lake Louise chalet in the

Trees are effective frames for scenic and landscape pictures. Neither the picture taken in the Everglades (left) nor that at Bar Harbor (right) would have held any great interest without the foreground. You can feel the depth, and the perspective is natural. Both foregrounds are completely in character with the nature of the center of attraction, one of the points to remember in connection with selecting an outlook for your pictures. Careful exposure is essential to retain the correct balance of tones, and often extra work in printing is necessary to allow proper detail in foregrounds, but the extra work is justified by the result.



Aches, doorways, windows are useful devices, contributing much to the feeling of the photograph. An instance of this is to be found in the photograph of Washington Cathedral (left). Where the proper frame cannot be found in connection with the subject, double printing (see page 20) may be utilized. Be sure the frame you select is in harmony with the central theme. Certain types of objects such as airplanes constitute their own outlooks when the proper viewpoint is chosen. Think before you click the shutter, as Schoenl has done with the photograph of the Navy Constitution (right).





The outlook can be manufactured in your darkroom! The original prints shown were of subjects which are quite likely to be barren of other interest... the beach shot and the palm tree. By double printing an improved picture results. The two must be harmonious... that is, they must look right when combined. This is an interesting way to obtain greater interest in your pictures, and is not difficult to do, in fact, it's fun. Look over your own negatives and try it soon.

Canadian Rockies the main point of interest to be emphasized was Mt. Victoria, 12,000 feet of rock and glacier.

In this photo, the two mountain slopes on either side of the lake might have been adequate as a frame. But the hotel window was handy and it was picturesque, so the shot was made through it.

The first thing you have to do to enjoy a fish dinner is, of course, to catch your fish. To achieve a beautiful frame for your picture, you have to find the frame. Movie cameramen are not averse to holding a palm frond in front of their lenses for an occasional effect shot, but most amateur photographers do not go a shooting with assorted branches of trees along as props. So they have to use what they find on the spot. For that reason, "framed" shots usually carry the feeling and flavor of the places where they were taken.

Few people who see a picture would mistake the moss-hung live oaks for an Oregon ocean backwater or any other place in the United States except the deep south. The palmettos in the foreground help frame the picture and add to the tropical Florida atmosphere.

Because of the use of fairly close foreground objects in framing a picture, a tripod is usually a required item, unless you are using a short focal length lens stopped way down and the day is bright. Nobody's picture ever was injured by using a tripod. They're a lot of bother but sharpness and depth are the reward.

You have to shoot at a fairly slow speed like 1/25th second. So another thing to remember is to beware of breezes

which shake the nearby branches. The infrared photo of beautiful Jefferson Memorial in Washington, D. C., was shot through a framework of Japanese cherry blossoms. The picture is highly popular with tourists and salon juries alike, but what does not show is that the photographer had to stand around on one foot or the other for about half an hour waiting for a still moment when spring breezes were not quivering the pink blossoms. The infrared exposure was one second at f:16 to get depth. With that long an exposure nothing can be moving.

One of the nicest things about a frame is that it holds together a picture which might otherwise fall apart. How much better is the picture of the little kitten peeking out of the blotter roll than it would be without the corrugated circular framing of the roll!

The frame does not have to be a nature-provided prop, either. The blotter roll idea "just came" after the photographer saw how much fun the kitten had darting through the roll, pausing occasionally inside to hide from imaginary enemies so easily dreamed up in kittenhood.

Maybe you're down at sun-baked Miami Beach and a flight of military planes roars by from the nearby naval air station to drop flowers on the ocean for Memorial Day. Point your camera upward through fronds of palm trees instead of merely shooting planes and sky. Or shoot that bulbous beach denizen through the legs of the lass drying herself off with her towel.

While we're on the subject of beaches, palm trees and

frames, try this wrinkle sometime if there are no frames handy. Shoot a shapely bather as she walks along at Narragansett Pier beach. Dig out that overexposed shot of the palm tree at Miami. Double print the two together and presto, we have moved the girl to Florida and given her a frame to supplement the nice one she already has.

In your search for frames for a picture you may be able to shoot that beautiful cathedral or capitol building through the window of a neighboring house or office building. Maybe the framework of a nearby bridge such as the spike-studded one over the Tidal Basin in Washington can be used to frame that shot of Washington Monument.

If you are down on the waterfront shooting fishing boats, the problem of finding a frame for your picture usually will be an easy one. Some part of the nearby boat, its masts or rigging, can serve to give you a "porthole" through which to thrust your camera lens. The fishing wharf may have some nets or old sheds which make admirable frames for your picture of the painter and the boats he is sketching.

Another place where framing comes in handy, though a little harder to achieve, is around an airport. There wide open spaces are the order of the day and you will be hard put to find a tree to crawl under. Perhaps you can duck beneath the wing of a plane and shoot its nose through the black paddle-like framework of its propellers as in the photo of the Navy's 180-passenger Constitution. Just remember to stay away from those propellers, they're dangerous.

All manner of things can serve as your frame. Maybe there is a beautiful ironwork gateway through which you can shoot a flowering tree or a couple linked arm in arm for a stroll. Find your gate and then set up a picture to take advantage of it—that is, take Cousin Al and his new bride there and set up the shot instead of just lazily posing them in front of your home rosebush.

As you are walking around town with your camera, keep an eye peeled for such likely locales for future shooting. Try a shot or two at the time, they may unfold greater possibilities when you see the prints. Maybe you'll find a nice vista through archways of the town bridge, or use the cables as was done on Brooklyn bridge to frame lower New York

skyline. The cables are small but they add the third dimension.

Whether you are in the high mountains or Virginia's farmlands, trees probably will be your best bet for framing. There always are lots of them around—use them. They give the person who looks at your picture the feeling of being protected, of being under a canopy of tree boughs shielded from the hot sun yet looking at a beautiful scene that recedes in the distance. The gateposts at each side of the winding road in the Virginia cornfield picture help the framing they keep the viewer's eye moving into the picture.

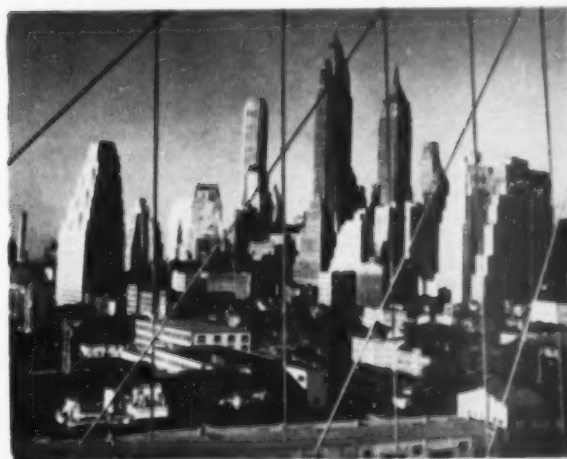
It is not necessary to show whole trees or large branches to get the third dimensional feeling. Just a suggestion of a trunk, a few leaves, may be enough. The Mt. St. Helens picture is a good example of this. Large nearby objects can overpower, in the photo, a really big distant object if you aren't careful.

If you are lucky enough to live up in New England where white birch trees grow, you have some photogenic, home-made frames which give any cameraman the shutter-itch. You might even be lucky enough to have a sailboat with a full spread of white canvas go skimming past your frame, just as you discover it. The Bar Harbor, Maine, shot of the boat and birches was just such an accidental happenstance.

Caves or tunnels are naturals for frames, although they occur rather infrequently. The mouth of mile-long Wauwauna tunnel as the traveler bursts on amazing Yosemite national park is a good example of how this sort of frame can be used.

All the frames aren't outdoors either. You may have some right in your desk. Look at the shot of the cat peering out from under the accordion-type letter file. All it took was a piece of string and a little imagination to get that prize-winning shot.

The moral of it all is, you don't have to look far to find a frame. Just a few steps in one direction or another may give you that added touch that "makes" the picture.



There is often a misunderstanding among photographers as to the classification of various types of pictures. Why are many good photographs turned down in salons? Why do successful salon entries fail to fill the bill for other purposes? Mr. Hanson's article may help to clear up the confusion which exists.

The Classification of Creative Work

by Raymond E. Hanson

CLASSIFICATION is not without its difficulties. Creative work may not always obligingly lend itself to such convenient connotation. Yet, in most instances the intention of the maker of a picture is evident, and in all fairness it should be taken into consideration in evaluating the picture's merit. For example, a picture in which the aim is wholly decorative cannot rationally be judged by the standards of pictorial art; nor can an illustration be frowned upon because it fails to conform to the tenets of ornamental art. An attempt at the clarification of terms applied to art work may not prove unprofitable.

Ornamentation is the lowliest form of art. It is used to relieve the monotony of plain surfaces. Every article of household furniture, the wallpaper, the silver service, plates and dishes, the door panels, all contain ornamentation. The tattoo marks on the features of savages is the result of a crave for ornamentation. Ornamentation may be good or bad, and whether good or bad it is most always associated with use. Good ornamentation will never interfere with the use of the article it embellishes, nor will it be ugly, too insistent, or displeasing to the eye. Pattern and design feature largely in this form of art—and there is a distinction between the terms as applied to their use in ornamentation. Pattern is a more or less systematic repetition of subject matter to cover space, as in the checkerboard. Design is of a higher order, embodying unity and rhythm.

Decoration is a higher form of art than the ornamental. In its loftier sense it is associated with the art of architecture, in the mural painting. The intent here is not so much to attract attention to the mural itself but to integrate it with the architecture into a harmonious whole. In a decorative mural so used, a definite illusion of a third dimension would prove fatal. The flat wall of the architect would appear to recede with the distance depicted in the mural, thereby throwing the entire scheme out of kilter. Decoration is conceived in flat, two-dimensional tones, and must exist as a portion of the wall it is intended to embellish, in perfect harmony with its surroundings. Experiments with photographic murals have been tried repeatedly but as yet do not appear to have won a permanent place in this phase of art. Photographic prints of decorative quality, suitably framed, are sometimes used to make a note of interest on the walls in a home. But not too many photographers—at least in the Occident—appear to take

much interest in this type of work.

Illustration is a term signifying that the artist is essaying to depict in his own medium some incident or scene which has been described in words by others, or perchance by himself. The illustration requires captions. Its function is to reveal manners and customs, historical or contemporary events, costumes of period, scenery of specific places—in other words it is descriptive. Mood may exist in an illustration, but it is not the main interest, and it is always secondary to the correct representation of subject matter. It may be conceived with as much regard to harmonious arrangement as the nature of subject matter permits, but it cannot be condemned if from necessity it violates tenets of pictorial art for the successful accomplishment of its purpose. Photographic illustration to date has been mostly confined to such subjects as scenery, historical sites, and definite articles used in commerce or as hobbies. With figures posed to represent incidents in fiction or history, it has not been noticeably successful.

Genre is the story-telling picture. It is usually the original invention of the maker, or it can be his conception of some historical event or a fragment from contemporary life subjectively treated. Successful genre is composed with careful regard to chiaroscuro, mass and line, and it can, in the hands of a master, reach into the realm of high art. Millet's masterpieces depicting the association of man with the soil, stressing the inner spirit of the relationship, might even be classified under this head. Even in its lesser conceptions, genre is on a higher level than illustration. And in this field the photographer has a chance to display his talent. A wide choice of subject matter is available to test his invention, challenge his skill in arrangement, and reveal his taste and feeling in knowing just what to emphasize, and what to sacrifice, for the creating of a successful genre.

Realism. Appraisal of some of the photographic exploits parading under this shibboleth leads to the conclusion that it is akin to reporting. There is good reporting and bad reporting, but even at its best one never hears it hailed as high literary art. Yet groups of photographers exist who appear to consider a so-called photographic realism as high creative art, and the sole means of expression worthy of notice. The advantages of this attitude are obvious. No great strain is put upon the imagination, and one can dispense with the annoyance of having to select

"Thoreau Room" was made as a purely record shot. The addition of a human figure in the chair, perhaps with a fire in the hearth, would make this an illustration, perhaps of life at the time. Proper lighting and composition of the illustration could conceivably make it a pictorial worthy of exhibition, however, the pictorial version likely would not be suitable as a record shot of the Thoreau Room of the Colonial Inn.



suitable arrangements of subject matter. The cloak of realism spreads its sheltering mantle over all discordant features, and the worker is thus relieved of the mental travail which is required in pictorial attempts.

Devotees to this type of photography seem to consider that subject matter must deal solely with the ugly, the vulgar, and the suffering or misfortunes of others. To some this may seem a singular point of view, and it might even suggest to the uninitiated that the mind which delights in depicting the suffering of others — horrors, the degraded and shabby in humanity, and its human monstrosities — could in some measure be suffering from a taint of sadism. And one gains the impression from such doctrines that the pleasanter aspects of life are not real, but only the sordid and vicious. Anything which may suggest elegance, grace or beauty is treated with disdain. But unfortunately for this system of reasoning it is obvious that to emphasize only one phase of life to the exclusion of all else is very false and untrue realism, and would — if taken seriously — induce a very low estimate of humanity.

Documentary, or Record. This type of picture aims to render the actual appearance of an object in all its detail. It is mere delineation, and depends for its success upon the ability of the photographer to make a sharp, clear record of the subject matter which may be anything — a souvenir of a vacation group, a stark representation of some interesting scenery, a piece of pottery, an ancient fireplace, or what not. Composition plays a very minor part. But suitable lighting designed to bring out detail is essential. The record is not to be despised. It has its place in photography as documentary evidence, and in furnishing visual information for personal, commercial, scientific, and other purposes. But its place is not on the exhibition walls, and the record shot will in no instance be passed by a jury composed of men with the requisite taste, knowledge, and experience which alone would warrant their position as judges of pictorial salon entries.

Pictorial. In its highest sense this term is applied to great creative art, in which the aim is unrelated to materialistic

usage, but is symbolic rather than informative, illustrative, or merely ornamental. The pictorial stimulates the imagination and stirs the emotions. Mood and feeling predominate. In the execution of a pictorial work, the incidence of light, balance of mass and line, and subtly designed arrangement of subject matter, are carefully considered. Perspective depth is stressed, and detail and illustrative features are sacrificed to unity and harmony in the whole. When the pictorial transcends reality, it attains the indefinable qualities of high creative art. The subject may be a landscape replete with beauty and mood, a marine in which one can almost catch the scent of salt water and the rumble of breaking waves, or it may be an allegorical or historical piece in which figure groups arouse the imagination to transcendental heights. And this latter is creative art at its highest level — the province of the great painters whose genius has furnished our culture with its great masterpieces. Whether photography can ever attain to such heights is a moot question. One might well hesitate to affirm that it can. Yet works of real pictorial merit have been made with the camera — not by scores, but on rare occasions when conditions and the vision of the photographer have combined to capture the inner spirit of a subject, whether it be a scene expressing a mood of nature, or a figure or group of figures in suitable surroundings engaged in customary, dramatic, fanciful, or other pursuits. But the picture, however, will represent these higher qualities only to the extent of the maker's capacity for experiencing the sensations within himself, and only to the limit of his skill in incorporating them in his negative and print. It is not enough to stumble upon some chance subject, make a clear, sharp, negative and blow it up to 16 by 20, tone it blue, green, or what not, and voila! — a masterpiece. Masterpieces are not made that way. If they could be, pictorial art would expire, for any art or craft which becomes too mechanical and easy of accomplishment is doomed.

With the exception of the pictorial and the higher genre, the classifications under discussion have embraced pictures

devoted to special purposes, which except maybe in rare instances would seem out of place in salons purporting to exhibit pictorial photography or in one-man shows of like intent. And this should be borne in mind when pictures are being selected for exhibition. If doubt arises as to which classification a subject may fit, recall the intent which inspired the attempt. If a reasonable degree of success has been attained in fulfilling the intention, the classification should not be difficult, and the chances of mere records or illustrations parading as pictorial work will be greatly reduced.

The reproduction shown here of the Thoreau Room at the Colonial Inn was made as a plain record to show the room as it is today, in all its details. Inspection of this detail will reveal a plethora of ornamentation. Note the designs on firetongs and andirons, carvings on the table legs and Windsor chairs, the design of the crock to the left of the hearth and that of the lock of the firearm above. Ornamentation is everywhere. It would be difficult to conceive of any place occupied by human beings where it is non-existent. The dish on the table filled with pine cones is for purely ornamental purposes and reveals the human urge and need for ornamentation. In this instance the record photograph not only imparts a general idea of the room in which Thoreau spent many wintry afternoons in snug

comfort before the hearthfire, but in addition gives some idea of the extent to which the lowly art of ornamentation enters into everyday life. Further, this same record might be used illustratively in a book on Colonial inns. By placing a figure dressed in Provincial attire before the hearth, eliminating the light fixture, the portrait of Lincoln, and any other items not in period, a true illustration could be evolved from the record. To carry it further, the general illumination could be excluded and the figure lighted by firelight or a single shaft of light purporting to be from the sun streaming through a window, whereby all else would be reduced to deep shadow, vague and without detail. The emphasis now would be wholly upon the figure. Unity would be achieved and a genre created, telling its story in a pictorial manner, and perchance worthy of a place on exhibition walls. The record in itself serves many useful purposes. And in a step beyond, one is confirmed in the impression that, integrated with other elements, using the record as a foundation, higher forms tending towards the artistic and pictorial are possible. With this in mind, photographers may discover among their record shots of landscape, marine, and other subject matter, material which by the exercise of the imagination and a requisite skill in manipulation, can be utilized in the making of pictorial prints.

As an example to illustrate the classifying of a subject, the print entitled "Plum Cove" is offered. It can be seen at once that it is definitely not ornamentation nor genre. While the tree has some decorative quality, as a whole it does not meet the requirements of decoration. It is not a good record of Plum Cove. A good record would show detail in the sands of the shelving beach and in the rocky ledges, and the locust tree would be strongly illuminated to display detail in foliage and bole. Further, the subject could not be used as an illustration even for a publicity circular—it might be anywhere. What does it have then? Is it pictorial? It does appear to express a definite mood—the calm and peace of declining day, with ruddy light from a low sun shimmering over the waters of a bay. The foreground of sand and rocks is vague and shadowy, with only subdued and unobtrusive detail showing. The clouds run horizontally, which tends to enhance the feeling of quiet and repose. The path of light forms a connecting link between the mysteries of an indefinite foreground and low lying islands on the horizon. And the tree, in dark silhouette, exhibits only form and mass. Upon integrating these elements it seems conclusive that if the subject is deemed worthy of classification, it must be placed in the pictorial group. But obviously, improvements can be made. The light in the sky to the right of the tree could be subdued a bit, and some minor changes made in the cloud forms and in the foliage. Other modifications will suggest themselves as the work progresses. The result may prove to be a pictorial print of merit. If not, there is always the wastebasket handy to receive it. But the photographer receives the benefit of experience, and should not feel discouraged. No one is always successful. For those who question this last assertion in regard to their own work, the Latins had a maxim much to the point: *Laus propria sordet*; and it might be added that it also deludes.

"Plum Cove" is not ornamentation nor is it genre. As a record shot of Plum Cove the photograph has serious shortcomings. The lighting and the mood created tends to indicate that this is a possible pictorial print. It may or may not turn out successfully, but the pictorial intent is present.



Vel was quite well pleased with her picture on the **AMERICAN ANNUAL** — so pleased, in fact, that she was willing to help the staff get the Annuals packed and in the mail! But, her appreciation of beauty began to wane as time wore on (see below) . . .



... and she adopted a rather unpleasant attitude towards that smiling girl on the cover of the **ANNUAL** . . .



... and finally wound up committing mayhem! This publicity series was photographed with a 4 x 5 Speed Graphic, Gundlach 8" convertible lens. Lighted by two 500 watt photo floods and backlit with photo light.



Can a girl get tired of looking at herself?

Can a pretty girl become tired of looking at her own picture? To find out, the photographer requested Vel Dorne, top Boston model, to come in and help pack copies of the **AMERICAN ANNUAL OF PHOTOGRAPHY** for shipment. Vel's picture appears in full color on the cover, and the accompanying photographs demonstrate quite well that a girl can tire of her own face!



AMERICAN PHOTOGRAPHY is privileged to present this outstanding article by one of America's outstanding pictorial photographers. Actually, there are two stories here: Mr. Standish's comments upon print quality, and the case history of one of his well-known pictures, which reveals the thought, procedures, and methods which he has utilized to produce a masterpiece. Let it be understood that the purpose of the article is not to advocate retouching procedures in all cases; the methods are applicable where test prints show the need of improvement.

the secret of print quality

by L. Whitney Standish, F.P.S.A.

THE IDEA OF SECRET FORMULAS or methods guaranteed to turn mediocre photographs into masterpieces is enough to make any photographer's mouth water with anticipation. There are few workers who have not, at one time or another, been told in the strictest confidence of some miraculous cure-all for picture-making troubles. That such information rarely is of much value seems to make little difference — the anticipation of new secrets to come is still entrancing.

In common with most photographers, I have spent much time and trouble in searching for the "secret methods" of photography. With me the search really started when in the early nineteen thirties I happened to see an exhibition of especially fine photographic work. It was a group of photographs made by the Oval Table Society of London which was making a tour of American cities. The prints were a revelation to me. I had not imagined that the photographic process was capable of producing so much beauty, or that prints could be made so rich in quality. It clearly demonstrated the inadequacy of the pictures I had been making. I must somehow learn the secret formulas and methods used in producing such splendid pictures!

Shortly afterwards, I was introduced to a professional photographer who operated a large photo-finishing plant. This plant specialized in making prints from negatives sent to them by small professional portrait photographers who did not themselves have the facilities to do as fine a job of finishing at such a moderate cost. The work turned out by this establishment was of a very high quality and had an extremely well-finished professional appearance. This photographer said that he would be glad to show me around, and that I could ask as many questions as I wished. This seemed a grand opportunity to learn all of the tricks of the trade.

We spent a good deal of time in going over all of the operations of the plant, and after learning of my particular interest in enlarging, he suggested that I spend an hour or two in watching their best operator make a batch of

prints. The first thing that I noticed was that the equipment used, outside of the washing and drying apparatus, was very similar to my own equipment. I took pains to inquire as to the formulas and the printing papers used in processing the prints and again found that they were either the same as I used or very similar. Obviously there was no mystery at all as to the materials, formulas, and equipment that were being employed to produce very high quality prints. This puzzled me, as I had not achieved any very startling success by using the same or nearly the same materials. I concluded that the printing method itself must be the secret.

In making the prints the professional operator worked most casually and quickly — there was little fussing or lost motion. No test print was made or needed and the first exposure produced a far better print than I had ever made. It was not, however, up to his acceptable standard of quality and was quickly tossed into a waste carton. In making the second print the exposure was slightly increased and the operator used his hand to hold back a small dark area near the base. A slight bit of extra dodging was given in the corners and a print resulted that to my untrained eye was perfection itself. A dozen like it were quickly run off. Needless to say, I felt baffled.

I won't pretend that I learned any great lessons from this session, although I did pick up a few minor and rather unimportant tricks that were worth knowing. Looking back, I realize that I had the answer then if I had only known it. There were two reasons why the professional operator was able to turn out fine prints so quickly and with such certainty. First, he was working with correctly exposed and developed negatives and with a paper, paper developer, enlarger, etc. that were well balanced to the negatives. It is of vital importance that all stages of photographic technique be related if the best results are to be secured. Printing from a negative that is of the right contrast and full of rich tonal gradations helps tremendously in making fine prints.

The second reason is much more important than the first.

FIGURE 1. First test print of a scene near Woodstock, Vermont. The subject requires interesting lighting and cloud arrangement to make an effective picture. This test print showed good lighting on the foreground, but the clouds were not dramatic enough.

FIGURE 3. Third test print. The clouds are now well formed and the composition of the sky harmonizes with the arrangement and the improved lighting of the foreground. It was believed that this negative could now be worked up into a satisfactory picture.

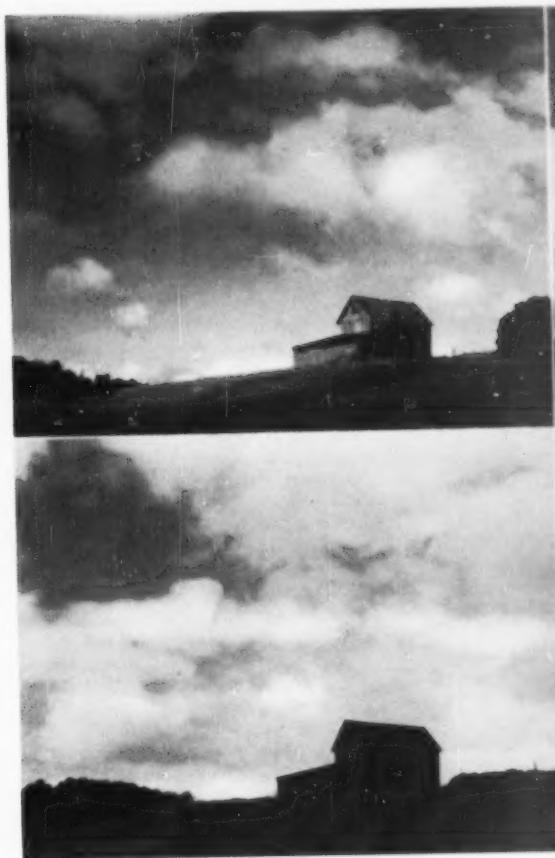


FIGURE 2. Second test print. In this print, the location of the camera was changed somewhat. The sunlight on the foreground has disappeared and the sky is even less interesting than in Fig. 1.

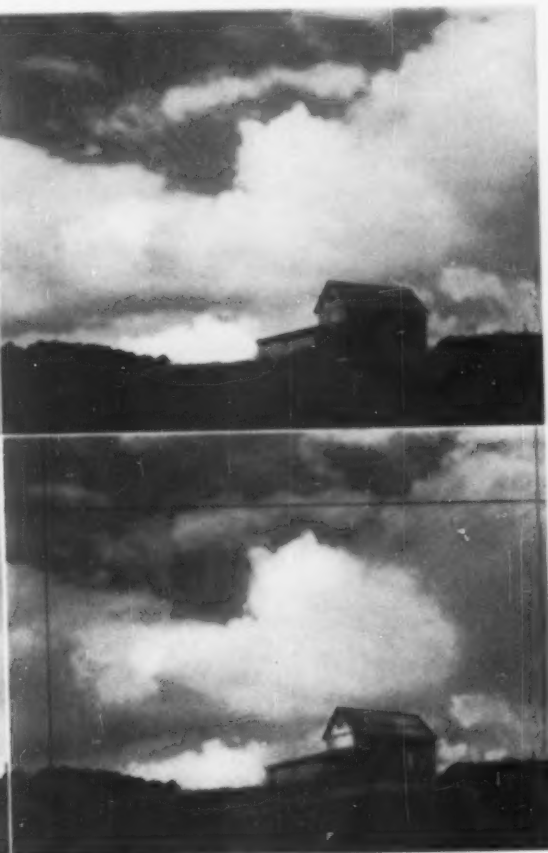


FIGURE 4. A test study made from a print similar to Fig. 3. The values have been altered with chalk and tempera to dramatize the composition. The black lines indicate the framing to be used in making the finished print.

The professional operator was working with a finely developed judgment. This, to my mind, is the real secret of print making.

Let us consider just how judgment affected the final results in the printing session previously mentioned. Working with judgment, the operator knew when he looked at the negative that he could secure a good print from it and that it was well suited to the paper and paper developer being used. This solved the problem of contrast. If the negative had been weak and soft or possibly hard and contrasty, it would have been recognized at a glance and certain adjustments would have been made in the printing technique to compensate for either of these faults.

Next, the operator knew the most effective depth of tone for which the print should be exposed. To determine this requires plenty of experience, as there are few things that are most subtle and yet more important to good print quality than an effective depth of tone. If a print is too light, it looks faded and wishy-washy; if it is too dark, it looks heavy and dense. Securing just the right depth of tone can always be achieved by the process of trial and error provided that the photographer knows and recognizes the most effective depth of tone when he sees it.

A third use of judgment was the recognition of which areas in the negative needed dodging or other manipulation. Usually the professional work there is a minimum of



FIGURE 5 Some control work has been done on the negative by means of dye retouching. The dark area of the foreground has been broken up by lighter areas and the sunlight on the barn has been brightened. Figures 5, 6, and 7 were made without any dodging to show the range of tonal values in the negative. This print is too light.



FIGURE 6 A slightly darker print than Fig. 5. In this print the sky is too light in tone although the base is now satisfactory.



FIGURE 7 Both sky and base are too dark in this print.

such printing control — it is preferred that the correct values be achieved by proper lighting when the negative is exposed; or, failing this, by retouching directly on the negative. However, a professional operator will on occasion darken or lighten an area in the print to break up dead tones or emphasize some feature. To secure the utmost of richness in a print it is most important that the worker understand how to break up dull areas and to recognize which areas need darkening or lightening to balance values.

There are many other ways in which experienced workers use judgment when making pictures. The important thing is to emphasize that the most important secret the ambitious print maker can learn is to develop his own judgment. Over quite a number of years of picture making this is, indeed, the only real secret of print quality I have ever been able to learn. Of course, from time to time, I have been sworn to secrecy and mysteriously told of this secret formula or that secret method. I have always been a sucker for such information and on learning anything of this sort I have hurried to my dark room to try out the latest cure for all the photographers' troubles. When the "secret" is given a real trial, it invariably turns out to be too complicated to be practical or somewhat less effective than any standard formula or method.

I remember one experience that illustrates the above point. Quite a few years ago, a research chemist friend who was interested in photography dreamed up a new negative developer that he guaranteed would increase the rate of film speed four times, would give grain-free negatives beautiful gradations, and would cut developing time to five minutes. It sounded like the answer to the photographer's prayer. At the chemical supply house when I ordered the necessary chemicals, the man behind the counter looked at me curiously and asked me if I were tanning leather, developing a new fertilizer, or just what it was I hoped to accomplish. He shook his head in wonder when I told him that the various chemicals were going into a photographic developer. In all fairness, the resulting developer wasn't bad. Actually, it did develop film and was almost as good as any standard developer that one could buy ready-mixed for one-half the price and one-quarter the trouble.

It has always seemed to me that there is a reason why there are so few photographic secrets of value. If a formula or a method is discovered that is really good, it then becomes marketable and the inventor either sells his secret to a manufacturer or starts commercially manufacturing the product himself. In either case, the worthwhile product quickly becomes available to the general photographic public.

The number of times in which a photographer must use his judgment while selecting a subject, exposing and developing negatives, and making the finished prints is nearly infinite. Decision after decision must be made and most of them are vital to the success of the picture. Of course, many of these decisions are necessarily more or less automatic. This does not imply that automatic decisions are unimportant. It is simply that there are so many factors which influence the final result that the photographer must, if he wishes to do superior work, develop his technique to a point where a good deal of it is routine. Without a certain amount of well-established routine in picture taking, the photographer has too much on his mind to be able to adequately consider problems of design, lighting, and so forth.

To illustrate the photographic importance of judgment, I have included a number of prints which show a few of the

problems that were encountered in making the picture "Pondret Heights". These prints do not illustrate all of the decisions made — far from it, but they do at least illustrate a few of the many matters which required consideration.

One day while driving over a back road north of the Woodstock area in Vermont, I came upon a group of barns set high on a hilltop. One of the barns particularly attracted me because of its simplicity of line and mass; and, as the sky was moderately interesting, I unlimbered my camera and selected what seemed to be the most advantageous spot. This location was only chosen after walking entirely around the barn and viewing it from all angles. Figure 1 shows the first picture exposed. It is a mildly pleasant picture and could possibly be developed into something worthwhile.

In making pictures, it is important that the photographer be unhurried. If there is a dramatic sky or atmospheric effect, it is, of course, sometimes necessary to work fast — but more often than not, if after the first few exposures are made, the photographer will wait, he will be rewarded with an even more dramatic negative than his first one. I believed that this might be so in this particular case. While waiting I examined the scene more carefully than I had at first and decided that the design would be strengthened if I moved my camera a few feet to the right. By so doing I eliminated the dark tree mass on the right and placed the barn more advantageously within the frame of the picture.

Very soon after the first exposure, the sun went under a cloud and the barn and the foreground became dark and lifeless. Also the sky was broken up into a mass of small and unattractive cloud shapes. This is illustrated in Figure 2.

After waiting about twenty minutes, the clouds once again began to form and it was apparent that the sun would come out from behind the clouds. Sure enough, in a few minutes I was able to make the exposure shown in Figure 3. This last picture is obviously superior to Figure 1 since the cloud shapes are now more dramatic and the entire design is much stronger. However, in this latter picture, the foreground lighting was not nearly as interesting due to the fact that the sun was partially obscured by a slight haze. While Figures 1 to 3 show the range of atmospheric and cloud effects they are by no means the only exposures made. Actually about twelve exposures seemed desirable.

In studying the test print shown in Figure 3, I decided that a worthwhile picture would result if certain values were modified. The foreground appeared a bit dead in tone and it seemed to me that the sky could be dramatized by printing it a little darker. To visualize these changes, I made the rough study shown in Figure 4. On a duplicate of the print shown in Figure 3 certain of the sky tones were darkened with dark gray pastel to play up the interesting sweep of the line and mass of the cloud structure. Notice that both the upper right hand corner and the left hand side of the sky have been considerably darkened. In the foreground, I roughly indicated the areas that I believed needed lightening, using white tempera applied with a very small water color brush. In addition I felt that the sunlight on the barn should be brighter, and this was also indicated with the white tempera. After making these changes, the trimming was decided upon as indicated by the black lines.

The next problem was to make a print that would, without obvious control, reflect the tonal changes indicated in the study. To lighten the foreground area and intensify the sunlight on the barn, I worked on the negative with a weak solution of New Cocaine. This was applied with a very fine



FIGURE 8. "Pawfoot Heights", the finished picture. Note that the entire sky has been dodged in darker, and, by selective dodging, the values indicated in the study reproduced in Fig. 4 have been obtained in this print.

water color brush and the dye was built up very gradually. In doing dye retouching of this sort, it is very important that the photographer accomplish the result desired and then stop; it is all too easy to go a step too far.

After completing the dye retouching, the next problem was to decide the most effective depth of tone for the print. It was rather obvious that the sky would have to be exposed somewhat longer than the base to be most effective. Deciding upon just the right depth of tone is important as a print that is either too light or too dark almost always fails to convey the photographer's message. To illustrate this I have included three prints (Figures 5, 6, and 7). All of these prints were made without any dodging or other manipulation. It is obvious that Figure 5 is much too light. In Figure 6, the base is just about the right depth of tone but

the sky is too light. Figure 7 is, of course, entirely too dark. It was a simple matter in making the final print (Figure 8) to give a general exposure, about the same as was used for Figure 6, and then print in the sky area a bit longer. Furthermore, a certain amount of dodging was done to darken parts of the sky as indicated in the little study shown in Figure 4.

From the above series of illustrations, the reader can easily deduce the various decisions that were necessary and the important part that judgment played in producing a picture that expressed the potentialities of the scene. That judgment is the only secret of print quality may be debatable, but of one thing I am sure, it is the only secret that is really worth much of anything.

"The Water Nymph"

Thomas Limborg

Here is an unusual treatment of the figure study. The basic pose is excellent and the low key treatment makes it worthy of careful study. Technically it is a good print; the full gradation of tones is difficult to render completely in a printed halftone where compromises must be made. "The Water Nymph" is the result of careful sketching of the idea previous to the actual posing; careful planning of the lighting and of the props. Twelve negatives of the subject were made. Mr. Limborg used a Meridian 4 x 5 camera, Zeiss f-4.5 lens used at f-8, 1/10th second, Ansco Triple 5 film. Printed on Opal C, abrasion toned.



"Lone Fisherman"

Frank E. Fuller

The strength of this picture lies in its composition, a bold pattern wherein the massiveness of the concrete structure is emphasized by the diminutive figure of the fisherman. Tonal values are very good with textures of both the concrete and the water showing up well. Photographed with a Kolluthe 2 1/2 x 2 1/2 Zeiss Tessar lens. Exposure 1/11, 1/50th second, on Ansco Supreme film, no filter. The original print is toned blue with gold chloride toner.

"Nocturne"

Maurice Zingher

Starting with an interesting composition in the candle and books, Mr. Zingher turned this into an interesting bas-relief study. The pseudo-relief is achieved by printing through a negative and a positive slightly out of register. The contrast of the positive was held to about 50% that of the negative. Photographed with a 8 1/2 x 7 in. Zeiss Plate camera, Zeiss Tessar f4.5 10.5 cm. lens. Exposed 10 seconds at f22 on Gevaert Fuchromag film. Developed in Kodinal and printed on Gevaert Prestomo Normal paper.

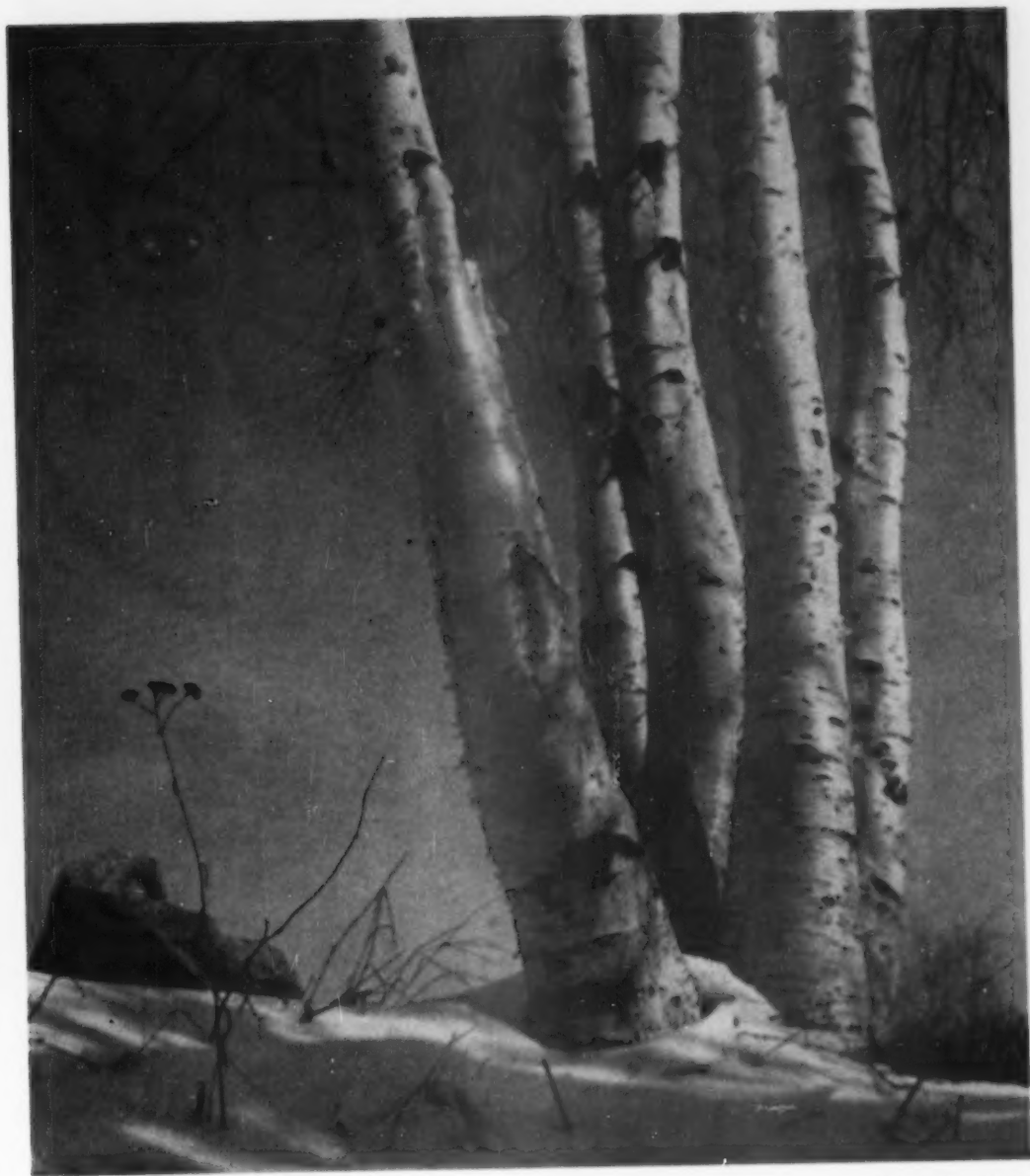




"Breakfast"

Dr. Max Thorek

There is much to commend in "Breakfast", by one of our finest pictorialists. Excellent composition, technical perfection, and strong emotional appeal. The out-of-focus background centers the attention strongly on the foreground, there is no distraction from the principal story of the picture. Taken with a Super Graphic Eastman lens. Exposure details not recorded. Film finished by the paper negative process. Positive was made by contact on commercial portrait film, the enlarged negative on Perfection (General Number 10), positive final print on Opal G.



"Silverbjorken"

Allan Ljungberg

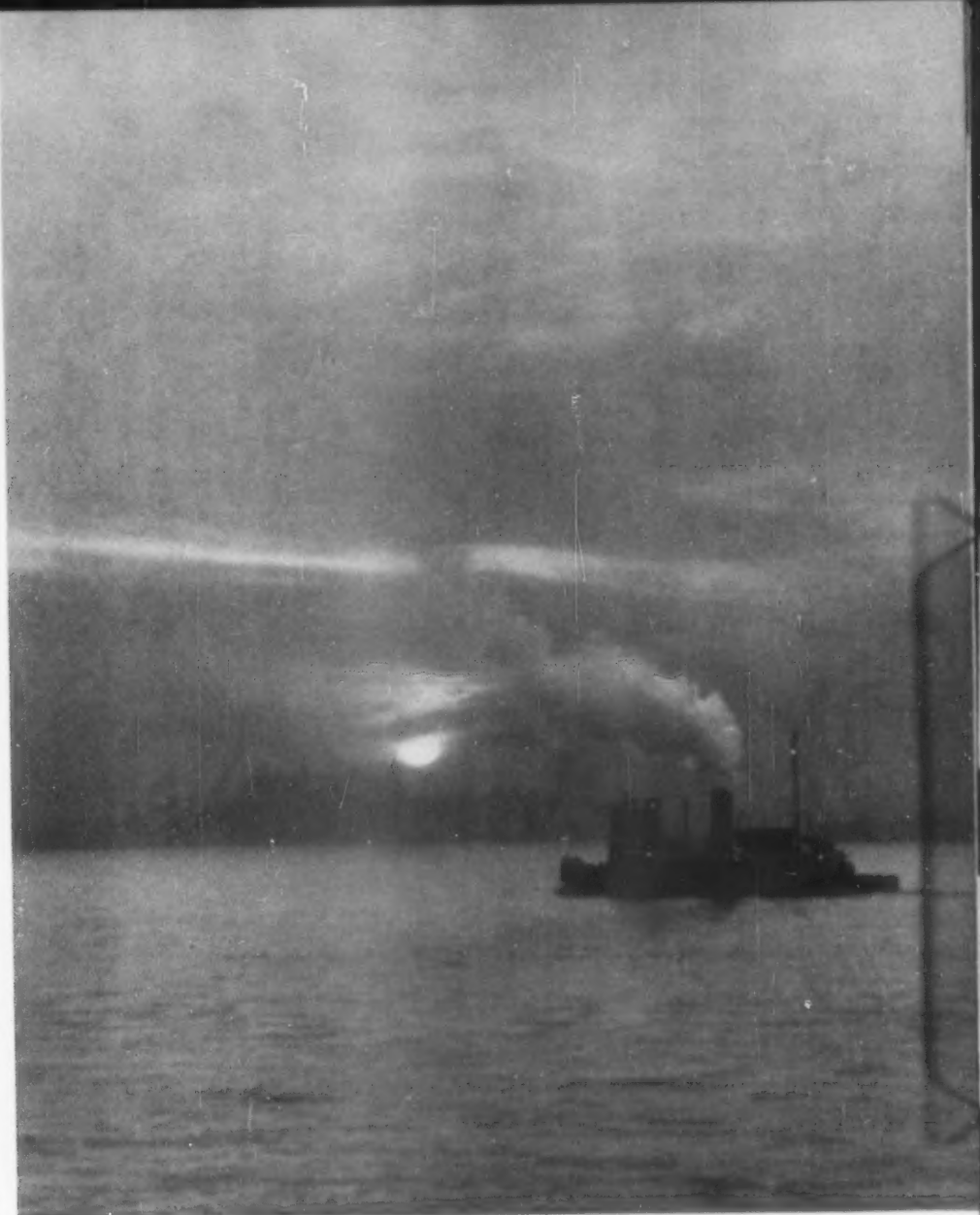
Simplicity and texture are the key points here. The arrangement and placement of the silver birch trees holds the attention. The composition and angle of view are unusual but still pleasing, with the low camera angle emphasizing the height of the trees even though we do not see the tops completely. Made with a Krasica Reflex 6 x 6 cm. camera, Schneider Xenar f/7.5 lens. Exposure 1/500th at f/8 on Kodak Plus X film, using a green filter. Taken at 2 p.m. on a sunny winter day. Long shadows are indicative of the northern location of this spot (Sweden).



"Interrupted Devotions"

Theodore L. Bronson

Here is a picture which wears well! Basically a good portrait, the story of the title is told subtly but unmistakably. There is absolutely no question about the presence of a handsome young man in the next pew. Worthy of notice are the classical hair style and blouse, and the hat which is hardly dated. This print is practically timeless in its appeal. Made with an 8x10 Ansco camera with 5x7 back, Ektar 14 inch lens. Exposure 1/25th second at f/16, studio lighting conditions and Tri X film. Developed in D19 and printed on Opal G. Toned for a few seconds in weak selenium toner.



"Harbor Moon"

G. L. Weissenburger

A typical good harbor shot. The light mist creates the mood. The combination is seen often but is always interesting when well handled. Note the rendition of delicate lightlines in the clouded sky. Despite the title, the exposure was made at sunset with a 4 x 5 Maridian camera, Goerz Dagor f6.8 10 1/2 inch lens, 1/25th second at f8 on Panchrom 8 film, light yellow filter. Developed in DK50 and printed on Opal L paper. Blue toned with thio-carbamide gold toner.

"Portrait of the Orient"

J. W. Galloway

A character study which again is not unfamiliar, but which holds the attention. Composition is very good, cropping effectively done. The lighting is sufficiently contrasty to create a mood yet important shadow detail is still present. Actually the main light is from a spot, with a single photoflood fill. Century Master 5 x 7 camera with Taylor & Hobson 11 1/2-inch lens. Exposure 15 seconds at f.8 on Triplet 5 film.





"The Eternal Triangle"

Irma G. Hazelwood

Child portraits which tell a story do not come easily, particularly when a group is involved. Mrs. Hazelwood has worked her "tool" to excellent advantage. Photographed with a Speed Graphic 4 x 5, Kodak Anastigmat f.4.5 lens. Exposure 1/10th second at f.11 on Tri X film, developed in Microdol. Printed on Indianona paper. Corners and bottoms dodged by darkening them. This type of shot is, incidentally, usually quite saleable.



"A Rhineland Lane"

Frank R. Fraprie

The works of the master require little comment. While this is not one of Mr. Fraprie's outstanding works, it still possesses character and interest far above the average pictorial subject. The picture's strength is in its pleasing composition, excellent rendition of texture, and its definite "Old World" flavor.

"Homeward"

C. Stuart Tompkins

The dusty road, the figure emphasized by the evening sun, the aerial perspective combine to make this an effective pictorial. Note the delicate emphasis to the foliage in the distance which helps to establish the feeling of depth. Unfortunately, technical data on "Homeward" is not available.





"Light and Shadow"

Buck Hoy

"Here is an interesting arrangement of lighting. The model is well chosen for graceful curves and the position conceals some possible deficiencies of anatomical grace. It would be difficult to suggest an improvement in the spacing and arrangement. Made with a 3 x 7 studio camera with Schneider lens, is second at f-6.3 in studio light. The Ortho-8 film was developed in D190s. Print on Opal G."—F. R. F.

The Kodak BULLETIN

DARKROOM

This Month

It's print-making time, time to get back in the swim . . . Here are basic darkroom plans that can be adapted to your every need . . . Complete news of Kodak's two great, new, cold-light enlargers . . . A check list to help you chart your darkroom modernization . . . Duh! on a new and

superior Wratten Series of Kodak Safelight Filters—with notes on what "unsafe safelights" can do to prints . . . Details of a new, low-priced contact printer, and a new Kodak Developing Dataguide . . . Some plain talk on the importance of washing prints thoroughly . . . Notes on how to achieve print quality . . . All to help you get away to a good start for a fruitful and creative winter.

Now's The Time To Get Back In The Swim

PHOTOGRAPHY has many facets—and if you forego darkroom work, you miss out on some of the keenest pleasures this hobby has to offer.

If by chance you have allowed other activities to interrupt the creative darkroom work that once gave you so much satisfaction—now is the time to get back in the swim. And if you have never quite managed to set up your darkroom for operation—now's the time to make a beginning.

Perhaps you plead "lack of space" when the darkroom urge nudges you. But a full-fledged photo-lab can be established in a space as compact as six feet—or less. Perhaps you have been delaying until you could obtain a truly modern enlarger at a fair price. If so, read the announcement of the new Kodak Fluro-lite and Kodak Hobbyist Enlargers—and the prices—in this Kodak Bulletin.

Very likely the headline above does not apply to you at all—because you're already deep in the winter's creative activity. But there's still one thing you may well do. Pick out a fellow amateur—one who has not yet undertaken darkroom work—and introduce him to its rewards. Let him enjoy the thrill of watching prints from his own pictures as they bloom in your developing tray—rich, full-scale, salon-size. Put his feet on the right path to photographic pleasure—and he'll bless you from now on.

"DARKROOM" OR "PHOTO-LAB"?

**Amateur Photography Needs
a Better Word For The Place
Where Fine Creative Work Is Done
—What Do You Suggest?**

PHOTO-ENTHUSIASTS need a new word to replace "darkroom"—a new word that suggests some of the satisfactions and rewards of darkroom activity.

The old word is out of date; the modern rooms have light-colored walls and are pleas-



To Make a Fine Print— First Choose a Fine Paper

There's a Kodak paper to fit every printing need

IT'S THAT "little extra something"—often simply a wise selection of paper type, tint, and texture—that makes your prints glow with life.

The true print connoisseur knows his printing papers, from Kodabromide A to Kodak Opal Z—and he matches the picture idea, subject matter, and paper type with scrupulous care.

Kodak makes an amazing variety of sensitized papers—but the stock clerk's headache is the print-maker's paradise. Among these Kodak papers, there's a texture, stock tint, image tone, adaptability to special toning, and a printing speed, size, and weight to fit your every need. Let us review, briefly, the favorite papers.

Kodabromide Paper

This high-speed, high-quality, high-latitude chlorobromide enlarging paper is the ranking favorite—easy to manage, and available in five evenly spaced contrast grades to fit the scale of almost any negative. The favorite salon types are E (white, fine grained, lustre), G (cream white, fine grained, lustre), and F (old ivory, fine grained, lustre). "Fine grained" denotes a delicately pebbled texture which subdues graininess in high-contrast enlargements from small negatives—yet does

not break down the effect of fine detail. "Lustre" identifies a pleasing surface sparkle—just enough to lend life to the print surface, but not so insistent as to impair visibility of the image.

Among these papers, the three stock tints give you a primary basis for selection. The rich ivory tint is your natural choice for scenes which suggest or include firelight, candlelight, or lamplight . . . for character studies and strongly masculine portrait studies . . . and wherever you desire an effect of extreme warmth or a feeling of mellow antiquity. Pure white, at the opposite end of the tint scale, is the apt choice for seascapes, snow scenes, and other cool, high-key subjects—as well as full-scale subjects which require brilliant white, cool neutral grays, and rich cold blacks in the print.

Kodabromide Paper N (white, smooth, lustre) is a favored exhibition paper for subjects rich in fine detail and delicate in gradation.

Kodak Platino Paper

This high-speed enlarging paper has won wide popularity because of the moderately warm image tone it yields upon development. It comes in Contrasts 1, 2, and 3—for normal and flat negatives—and surface types F (2 and 3 only), F, G, and Y (cream white, silk, lustre). The sparkling, silky texture of this last type enhances some portraits, still-life studies, and snow or water scenes.

Kodak Opal Paper

This moderate-speed chlorobromide enlarging paper is definitely for the expert—and rich in promise for those who take the pains to master it. It yields a warm image upon development, and is notable for the extreme delicacy of its gradation, and for the clean separation and luminous transparency of the image tones. There is but one contrast—for normal negatives—with a choice of ten tint-texture types, including such luxurious surfaces as suede, matte, tapestry, and fine grained high lustre. No other paper offers so wide a range of choice for the discriminating user.

antly flooded with safe light, except when you're handling panchromatic film.

"Photo-lab" may be a trifle better—but it sounds technical to beginners. "Processing room" is a cold term, it doesn't even suggest the pleasure of print-making, or the delight of seeing a sparkling negative emerge from the hypo. "Workroom" makes it all sound like labor—when every devotee knows it's fun.

Think of a better word—suggest it to the editor of your favorite photo magazine—and you may make a genuine contribution to the progress of amateur photography.

MODERNIZATION ISSUE



Kodak Electric Time Control (below) for accuracy in printing exposures.



◆ Kodak Enamel or Hard Rubber Trays are standard—in a wide range of sizes.

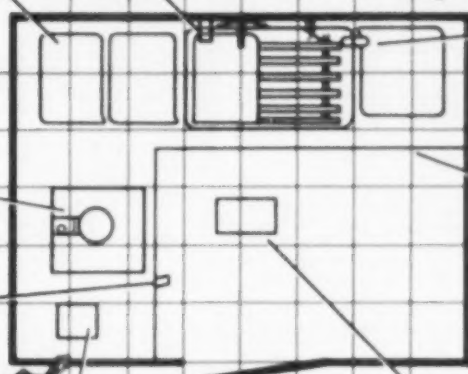


Small safelight over sink; timer on shelf above.



HERE'S A BASIC DARKROOM PLAN

Your new Kodak Fluorolite Enlarger goes here. Its light-tight cabinet base is 17 inches wide, 21½ inches deep.



Kodak Automatic Tray Siphon clips on wash tray—keeps fresh water circulating—drains out into sink corner.

Kodak Senior Trimmat No. 3 (ample size for 11x14 salon prints) fits under counter when not in use.

Kodak Utility Footswitch (above) keeps both hands free for dodging operations.

Contact printer (Kodak All-Metal Printer Model 3 or Kodak Home Printer) fits in here.

Large indirect safelight (Kodak Utility Safelight Lamp, Model C) floods room with comfortable, safe working light.

Planning Notes

BASIC PLAN is 6x8 feet (each square is 12 inches). Plan condenses easily to 5x7, shape can be varied. A dry basement is the best location (office tend to be too warm in summer, cold in winter). Walls can be of thin wallboard on light wood frames. Don't try to use curtains; they catch dust. Paint or asphalt-tile the floor. Use the largest flat-rim sink you can afford; put a

frame of 1-inch slats in it as a base for tanks and trays. Buy trays at least one size larger than you think you will need. Linoleum, covered up at rest, makes the best counter top. Provide on-edge storage below sink for extra trays and ferrotype plates. Plan at least one electric outlet on each wall. Forced ventilation is not imperative; just leave the door open when you step out

for a reef or a smoke. If possible, provide a mixing faucet for hot and cold water—and keep the bath at least 15 inches above the sink bottom. Counters need be no wider than 24 inches. Underneath, provide cheesecloth stretchers for drying prints, or space for Kodak Blotter Rolls. Remember that *workability* is more important than fancy finish.

KODAK ANNOUNCES TWO GREAT NEW ENLARGERS

THEY'RE modern as tomorrow, these Kodak Enlargers—free of all ties with tradition or precedent—a designer's delight and a print-maker's dream.

These are the *first* cold-light enlargers with an instant-on, instant-off light source... the *first* enlargers with an illumination system based on the principle of the "integrating sphere"... the *first* to achieve the brilliance and speed of condenser-type enlargers without the disadvantages of condensers.

The Kodak Hobbyst Enlarger (next page) is a basic instrument—simple, sturdy, ef-

ficient, budget-priced at only \$47.50 with a Kodak Enlarging Ektanon f6.3 Lens.*

The Kodak Fluorolite Enlarger (at right, and on next page) is a connoisseur's choice, with every facility for printing control... lens interchange and ample bellows for everything from reductions to blowups... tilting and rotating carrier for distortion control... simultaneous two-hand manipulation of focusing and magnification, rivaling the speed of auto-focusing but without its cost... heavy column and double trapezoidal bracket

(Continued on next page)

*Prices in this Kodak Bulletin include Federal Tax wherever applicable.



The
Kodak
MAGNET

These are key features

(Continued from preceding page)

but extreme rigidity and freedom from vibration... large, easy-to-grasp hand controls... head swing which, with rotating negative carrier, lets you place any part of the image at any position on the easel... and even a spacious lighttight cabinet built into the base. Yet the price, less lens, is only \$112.50.

There's value in every inch of this great new enlarger. Construction details on this page; key advantages on next page.

Negative carrier fits with tight-light seal; no side leakage.

Round neoprene bellows is neat, efficient, long-lived; has ring-shaped internal light baffles.

Lenses interchange readily: Full complement of Kodak Enlarging Ektar and Kodak Enlarging Ektanon Lenses is available.

Lens bracket has long sliding surface seating firmly on bar frames; focusing is smooth and precise.

Micro-elevation adjustment moves head up or down at the touch of a finger tip; permits very accurate setting. (Knob above on column merely locks head in place; is not used for focusing.)

Negative carrier opens when edge is pinched, for easy insertion of negative or transparency. Full choice of carriers, from 35mm. (24x36mm.) to 2 1/4x3 1/4 inches. Note fluted rim on carrier, for easy rotation when in enlarger.

Accessory roll-film cups attach to and rotate with carrier.

Lighttight cabinet base is 17 inches wide, 21 1/2 deep, 3 high; front has spring-closing safety door.

Low, compact lamphouse is light-tight, perfect for color, always cool.

Rigid tubular steel column.

Spring counterbalance makes head smoothly adjustable.

Ring-shaped fluorescent lamp (in average use will yield more than 10,000 hours).

Negative carrier rotates at the touch of a finger; is held firm by lamphouse.

Negative carrier platform tilts through 12 degrees; locks firmly at any setting; has zero index.

Positive lock keeps enlarging head at selected height.

Control knobs are large, deeply fluted, easy to find and use.

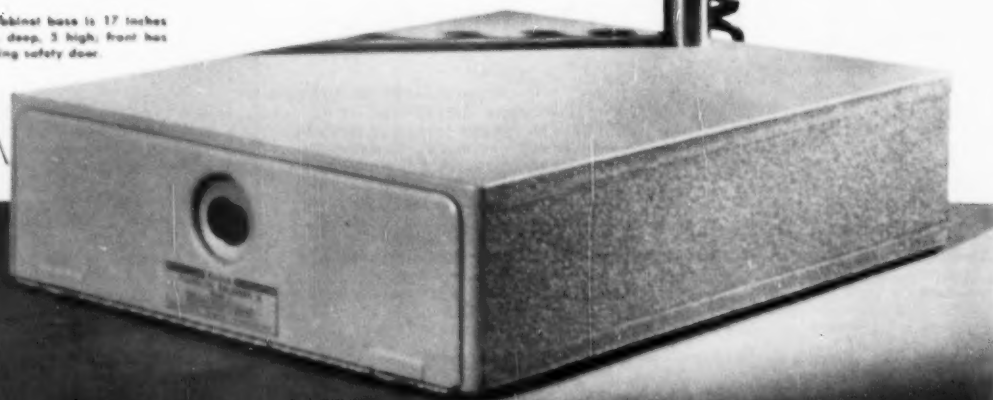
Self-coiling power cable has all connections factory-made; leakage reactance transformer to activate lamp is built into enlarger base.

Lensboard provides quick insertion and release of Kodak enlarging lenses.

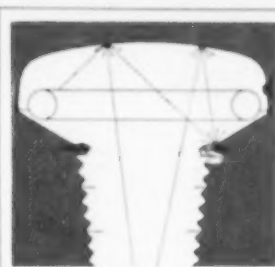
Hand switch in extension cord (not shown) operates lamp. Action is instantaneous; no shutter is needed on lens of this cold-light enlarger.

Column extends full depth of cabinet base and is rigidly supported at both bottom and top of base unit. A single set screw holds it firm, and permits swift disassembly when necessary.

For color work as well as black-and-white, choose Kodak Enlarging Ektar Lenses f/4.5, 2-, 3-, or 4-inch. For fine black-and-white work, Kodak Enlarging Ektanon Lenses f/4.5. All are Lumenized for finer print quality, improved contrast, cleaner tonal separation. \$22.50 to \$56.



of the Kodak Fluorolite Enlarger



Most unusual of the Kodak Fluorolite Enlarger's many unique features is the illuminating system. In creating the lamphouse, Kodak designers adopted the principle of the "integrating sphere"—a laboratory lamp-testing instrument which produces perfectly uniform illumination on a reflecting surface. A new fluorescent lamp is used—ring-shaped, with spectral characteristics suited to photographic work both in black-and-white and color. The net result (see cross section at left) is a cool, high-efficiency system... using reflected light only... with no "hot spot" whatever... drawing only 22 watts... yet equal in printing speed to a condenser system with a 150-watt incandescent photo-enlarger lamp! Good contrast for focusing, too.

—And It's More Than Just An Enlarger

THE Kodak Fluorolite Enlarger is not only the most modern, best-designed enlarger you've ever seen—it's also the nucleus of a complete photographic system.

With accessories, it becomes an efficient 2½x3½ view camera with rotating back... a 35mm. view camera for color-slide and black-and-white work, with the advantage of lens interchange and liberal bellows extension... a copying camera... a slide-making camera (with ample facility for enlarging, reducing, cropping, and correcting originals)... a microfilm camera... a photo-micrographic and laboratory camera... a clinical view camera... a cine tilting stand. These "bonus" uses place the Kodak Fluorolite Enlarger in a class by itself.

Pictured here is the 2½x3½ view camera adaptation, utilizing the accessory Kodak Fluorolite Camera Bed and Kodak Fluorolite Camera Back Adapter. Your Kodak dealer has a comprehensive booklet which cov-

ers the other accessories for this unique photographic instrument—copying lights, 35mm. film adapter, and others. You should know the setup thoroughly—because it holds rich promise for your photographic future.



With a Kodak Fluorolite, you have tomorrow's enlarger—today.



Completely indirect illumination system. Best enlarger system ever designed on the "integrating sphere" principle. The enlarging lens never "sees" the lamp.



Virtually perfect uniformity of illumination, from corner to corner of every negative, large or small.



Printing contrast comparable to that of a condenser enlarger—without the disadvantages of condenser illumination. High visual brilliance for easy focusing... and printing speed typical of condenser-type enlargers.



Instant-on, instant-off fluorescent lamp. Accurate exposure control without shutters... a perfected cold-light source, accurately color-balanced for color separation work with normal bleacher filters.



Prints lens interchangeable... with bellows extensions sufficient for a wide choice of focal lengths.



Negative carrier with full-circle rotation. Image can be rotated to any angle without moving the paper easel.



Tilting negative-carrier platform. With rotating carrier, it permits the fullest degree of distortion control.



Swinging head, full-circle. Combined with rotating negative carrier, it permits projection of any part of the negative to any desired point on the easel... or to the floor, for big blowups.



Simultaneous two-hand control of focusing and magnification... no stopping to lock the head in position before focusing... no trial-and-error delays. Speed and convenience comparable to auto-focusing, with no complex mechanism to get out of order.



Extreme steadiness and rigidity... resulting from the combination of a light-weight head, a sturdy steel column, and a deep, rigid paper-cabinet base.



All electrical connections safely and permanently made by the manufacturer. Enlarger assembles quickly, takes down quickly for moving or storage.

And it's a beautiful bit of modern design... a handsome, efficient unit you're proud to see in your denroom... as well as a versatile, adaptable unit for many practical photographic applications outside of the denroom.

100% Utility— That's The "Hobbyist"

THE new Kodak Hobbyist Enlarger, at left, has exactly the same illumination system as the Kodak Fluorolite Enlarger—the same high-efficiency cool fluorescent lamp, the same scientifically designed "integrating sphere" lamphouse.

Yet the price of the Kodak Hobbyist Enlarger, complete with 89mm. Kodak Enlarging Ektanon f/6.3 Lens, is only \$47.50!

This enlarger is 100% utility—from the baseboard up. All effort has been concentrated on operating performance. The design is clean and modern, with attractive finish but no fancy trim. And the result is a basic enlarger which offers maximum return for every penny you put into it.

Baseboard of the Kodak Hobbyist Enlarger

is sturdy five-ply laminated wood. The column, a square aluminum tube of great rigidity, is inclined forward. The head support bracket dispenses entirely with locking and elevating knobs, in favor of an ingenious tension-grip design. Squeeze the bracket lightly between thumb and forefinger, and the head can be slid up or down smoothly as velvet, release the pressure, and the head is instantly, automatically locked in place.

The enlarger accommodates any negative size up to 2½x3½, and you can make enlargements up to 7 diameters on the baseboard. The negative carrier rotates as in the Kodak Fluorolite Enlarger, for easy image alignment. The lens, especially computed for high definition in black-and-white enlarging, has click stops for easy adjustment without looking at the f/stop. A handy push-button starting box controls the lamp; you place it at any convenient position alongside

(Continued on next page)



Are Your Safelights Really Safe?

(Continued from preceding page)

the baseboard. Glassless negative carriers are available in every popular size from 35mm (24x36mm) to 2 $\frac{1}{4}$ x3 $\frac{3}{4}$; these are the same carriers as for the "Fluorolite," and rotate in the same manner.

If you lack a permanent darkroom, the Kodak Hobbyist Enlarger has an additional "plus" feature for you—the convenience of a take-down enlarger without extra cost for a carrying case. The packing carton measures about 35x13x7 inches, and has its own carrying handle; the enlarger disassembles quickly and tucks away neatly. And, with the carton, it weighs only about 17 pounds.

UNSAFE LIGHT is a quick and sure way to ruin print quality. If your safelights are old and faded, cracked, too close to the working area, or fitted with lamps of higher-than-recommended wattage, you're probably suffering a quality loss on every print you make.

If your safelights are damaged or obsolete, change over now to the new Wratten Series of Kodak Safelight Filters. They're better in every respect than old-type filters—better in construction, safety of filtering, and visual transmission.

Safelight fog is tricky, and often difficult to detect. It's aggravated with some papers simply because they're good papers. Kodabromide Paper, for example, has a special sensitizing which yields both high



This is the large, indirect-type Kodak Utility Safelight, Model C. It is supplied with a 10x13-inch Series OA Filter. With chains for ceiling hanging, \$12.42; for wall bracket, add \$1.85.

speed and high quality—when it's developed under safe light. But if the light is unsafe, it may affect highlight quality even when no fog is detectable in the print margins. The combination of highlight exposure from the enlarger plus fog from the unsafe safelight is sometimes enough to add up to a faint veiling... just enough to take away the clean, sparkling quality that distinguishes a fine print.

The cure is simple. Use safe light.

Filters in the new Wratten Series bear the same designations as older filters—but are quite different. Except for the No. 7 (infrared), the new filters are single sheets of glass, coated with dyed gelatin of correct spectrophotometric characteristics, and Tentite-dipped for surface protection from wetting and vapor.

Types include Series OA, for papers; 1, for color-blind plates and films; 2, for orthochromatic plates and films; 3, for panchromatic materials.

Incidentally, when you replace your safelight filters, give serious consideration to a large indirect-type ceiling safelight for general darkroom illumination. No other device will add so much to your operating comfort.



Good negatives are the first basis for print quality. To help you produce such negatives—accurately timed in development for the contrast you want—there's a new Kodak Developing Dataguide (at left). It's an easy-to-use dial calculator, handy when you're developing Kodak roll, pack, or sheet films (or Kodak plates) in tank or tray. Covers various combinations of film and developer, within a permissible temperature range. 50 cents.

Enlargement exposure will be "right on the nose" when you use a Kodak Projection Print Scale (right) to make your test prints. Device is simply laid over the test print and exposure made through it; best segment of test print then indicates correct exposure time. \$1.34. For other Kodak aids to print quality, read the discussion below.



PRINT QUALITY. It's a matter of self-discipline... plus the right tools

LIKE feminine beauty, print quality is easy to recognize—but hard to define in words. Primarily, it is dependent on tonal scale—rich shadow tones, transparent and cleanly separated middle tones, and clear crisp highlights without fog or veiling.

Such quality is achieved from the following essential ingredients:

1. A good negative, and an enlarger with a lens designed for enlarging—preferably a Luminized lens.
2. Good materials—a good paper, and a developer designed for that paper.
3. Good processing aids—an accurate thermometer, a reliable timing device, and a dependable exposure-test device such as the Kodak Projection Print Scale.
4. Good technique and self-discipline. "Good technique," basically, means that the developer should be mixed fresh to the correct strength and used at the correct temperature; that the test prints should be developed the full time recommended for the particular paper; that the print exposure should be exactly what the test strip indicates; and that the print should be processed exactly as was the test strip—in the same developer, for the same time, at the same temperature.

Self-discipline means adherence to good technique—no matter how it hurts. If you develop test strips hurriedly—if you over-expose prints and jerk them from the de-

veloper too soon... if you undertime the exposure and then force development past the logging point... you may get usable prints, but they won't have the crisp, sparkling quality that wins universal praise.

All Kodak processing equipment, papers, and chemical preparations fit into a rational system—pre-planned to assure your success if you use them properly. For Kodabromide Paper, the correct developer is Kodak Dektol; for Kodak Opal, Platino, and similar warm-tone papers, Kodak Selectol Developer is correct. Kodak Acid Fixer is accurately prepared for fixing and hardening in one operation. Kodak Indicator Stop Bath, for use between development and fixation, not only halts development promptly—but also signals exhaustion by change of color.

Kodak thermometers are reliable, whether you use the 45-cent Kodak Darkroom Thermometer, the handy clip-on Kodak Tank and Tray Thermometer at \$1.85, or the high-utility Kodak Shutter Rod Thermometer at \$2.50. Each is specifically made for photographic use—for accuracy, and easy reading under darkroom safelights.

Kodak Timers are famed for their precision. To control enlarging and printing exposures, choose the \$13.50 Kodak Electric Time Control, for direct reading and stopwatch timing of development, choose the Kodak Timer with Tilting Base—\$7.50.



Dependable reference material is as important as any other darkroom aid. Standard manual for the serious worker is the Kodak Reference Handbook, above. It's a sturdy multi-ring binder containing the seven basic Kodak Data Books—each of which can be replaced individually and at small cost when a new edition appears. Price of the Handbook, \$3.50. It includes the Data Books on Processing and Formulas, Papers, Films, and others.

Use This Checklist In Your Darkroom Planning

The
Kodak
BULLETIN

(Items are more or less in order of priority; "must" items first, desirable additions later. Chances are your budget won't cover everything you'd like to have—so retain the list for later reference. Items marked * are discussed or pictured elsewhere in this Kodak Bulletin.)

- ☐ Kodak Enamelled Trays,* heavy porcelain enamel on steel, ten sizes from 4x6 to 23x28 inches, 83 cents to \$16.30; or Kodak Hard Rubber Trays, seven sizes from 4x6 to 20x24 inches, 35 cents to \$14.
- ☐ Kodak Fluorolite Enlarger,* \$112.50, or Kodak Hobbyst Enlarger,* \$47.50.
- ☐ Kodak Bromide, Kodak Opal, or Kodak Platino Paper,* wide range of sizes, standard salon print size is 11x14 inches.
- ☐ Kodak Dektol Developer,* for cool-tone papers such as Kodabromide, package to make 1 gallon of stock solution (3 gallons of working solution), 70 cents.
- ☐ Kodak Selectol Developer,* for warm-tone papers such as Kodak Opal or Kodak Platino, package to make 2 gallons of working solution, 50 cents.
- ☐ Kodak Acid Fixer,* package to make 1 gallon, 50 cents.
- ☐ Kodak Indicator Stop Bath, 16 oz., \$1.00.
- ☐ Kodak Darkroom Apron, black vinyl plastic, to protect your clothing. Two sizes: medium, \$2.25; large, \$3.
- ☐ Kodak Darkroom Thermometer,* 45 cents; or Kodak Tank and Tray Thermometer,* \$1.85; or Kodak Stirring Rod Thermometer,* a very useful unit, \$2.50.
- ☐ A Kodak Safe Light Lamp,* wide choice of types, from 99 cents to \$13.42. Best to have two, one over working area, the other at ceiling for general room light.



- ☐ Kodak Graduates, wide choice of sizes, 25 cents to \$3.
- ☐ Kodak Combination Funnel, for pouring all solutions, 85 cents.
- ☐ Kodak Automatic Tray Siphon,* to assure thorough washing of prints, \$5.25; Kodak Washing Assembly, converts any sink into a print washer, \$2.25.
- ☐ Kodak Timer With Tilting Base,* for accurate control of developing and fixing time, \$7.50.
- ☐ Kodak Electric Time Control,* for precise, repeatable timing of exposures in contact printing or enlarging, \$13.50.
- ☐ Kodak Home Printer,* for efficient production of contact prints, \$12.50.
- ☐ Kodak All-Metal Printer Model 3,* a superior contact printer for negatives up to 4x5 1/2, with numerous technical refinements, \$22.50.
- ☐ Kodak Utility Footswitch,* sturdy micro-switch unit which frees both hands during enlarging or contact-printing exposures; considered essential by many experts, \$10.00.
- ☐ Kodak Photo Blotter Roll, for efficient

drying of non-glossy prints, made of selected photo-safe blotting paper with corrugated card backing to ensure good ventilation, \$2.75.

- ☐ Kodak Ferrotype Plates, for mirror-like gloss on glossy-paper prints, sizes 10x14 to 18x24 inches, 70 cents to \$2.15.
- ☐ Kodak Print Rollers for pressing glossy prints into contact with ferrotype plates, several types, 70 cents to \$21.50.
- ☐ Kodak Negative Files, sizes available for miniature negatives and others up to 5x7, \$2.25 to \$3.25. These are well-bound books of transparent numbered envelopes, with index pages—perfect basis for an orderly, reliable file.



- ☐ Kodak Senior Trimmer No. 5,* Metal frame, solid hardwood bed grooved in 1/4-inch squares for accurate print alignment; keen blade of high-quality steel. Ample for 11x14 prints, \$12.00.

A Careless Wash Invites a Quick Washout

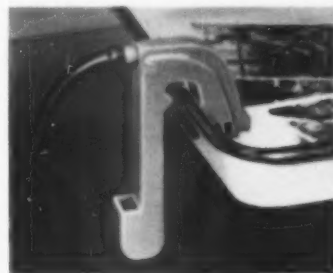
PROPERLY fixed and thoroughly washed, a black-and-white print image is as permanent as the print paper itself. But "proper" means more than a long soak in the hypo, followed by a hasty dousing in two or three changes of water.

Long fixation is not only unnecessary but actually harmful. A good fixing bath (such as Kodak Acid Fixer) works promptly, especially on print emulsions. Too-long fixing tends to bleach the image and "set" the by-products of fixation in the paper fibres.

Fix for exactly the recommended time, in a live, tested bath. Don't overwork your hypo and acid stop bath, and test them from time to time with a Kodak Testing Outfit. The outfit costs only \$1.25, and can save many times that amount in printing paper.

Transfer your prints promptly from the fixing bath into circulating water. The best setup at moderate cost is a Kodak Automatic Tray Siphon clipped to a large tray, and draining into another tray or a sink fitted with a Kodak Washing Assembly. Use the

lower tray or sink for a preliminary wash, then transfer the print to the upper tray for the final wash. This gives better washing with less water.



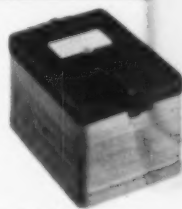
Kodak Automatic Tray Siphon attaches to a faucet; converts any tray into an efficient circulating print washer.

BASIC PROBLEM:

How to own an efficient contact printer without taking too much out of the enlarger budget.

BASIC SOLUTION:

A Kodak Home Printer.



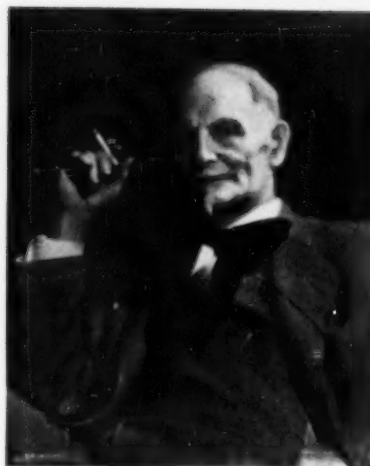
THIS attractive all-metal printer (see cut) is only \$12.50—yet it serves every amateur contact-printing need. Briefly, it accepts negatives up to 4x5 1/2 inches, paper up to 5x7, provides for strip printing of 35mm. and larger roll-film negatives, has four independent masking and centering guides, with easy-to-read scales on two paper-locating guides for 1/4-inch or wider margins, an even-pressure platen lined with foam rubber, and a printing light switch which operates automatically upon closing the platen. A 7 1/2-watt ruby light provides safe working illumination, a 10-watt frosted lamp (not included) furnishes printing light. It's an outstanding value of a very reasonable price.

Kodak
BULLETIN

Pop says for you to write in to him, in care of this department, about any photographic problem that you have. His gang will talk it over and give you the answer, or try to find someone who can.

Pop sez —

by Franklin I. Jordan, F.P.S.A., F.R.P.S.



This month Pop gives suggestions on eliminating shadows from eye-glasses.

ITIS MILLER of Niagara Falls likes our gabfest here but would rather we talked about his troubles than make so much noise about our own. So here goes. He is having a heck of a time trying to photograph people with eyeglasses without showing reflections or shadows from them. He and who else? Seems to me we have all had that problem.

Reflections are an easy matter. Change the angle of the light or of the camera, or both, and watch results on the groundglass until reflections disappear. But you say that doesn't give you the lighting effect on the face that you want? Isn't that just too bad? Reflections cramp your style, in other words. So do a lot of other things. Photography, like every other aspect of life, must be full of compromises if we are not going to be bogged down to a standstill. Well, if you *must* have that lighting and no other, you can do as many professionals do. Keep on hand a stock of different kinds of frames without any glasses in them and substitute one of these on the nose of your victim at the instant of exposure.

The shadows of the frames remain, and that is a different problem. Anything that obstructs the light necessarily casts a shadow. If you remove the shadow, you have an unnatural effect. Is that what you want? Or do you simply want to minimize the effect of the shadow? You can accomplish this easily by giving a full exposure and short development. But that per-

haps does not produce as snappy a negative as you want for other purposes. So you are stuck again. Your only recourse is to retouching, and you say that your negatives are too small for that. A lot of people do it as a matter of course on 35 mm, and you say you can't do it on a 4 by 5. What's the matter with you? Are you sure that you live right?

I know that retouching is a profession in itself, and that it takes several years of study and practice to get to be any good at it. But that applies principally to etching, taking silver off from the negative to make it print darker. Your problem here is to add to the opacity of the negative, which is a much simpler matter. Ever try New Coccine? It is a red powder supplied by Ansco, and it is God's gift to amateurs who can't retouch. A dollar's worth will last you a lifetime, and you never invested a dollar better. You mix a little in water and apply it as a wash with a fine brush for work like this. Keep the coatings thin, and if one does not do the trick put another on over it. And another, if need be. Practice on an old negative until you get the hang of it. Dip the brush in the solution and then point it up by twirling it on a piece of paper towel until the brush is so dry that the mark it leaves dries almost instantly. If the brush leaves a pool of solution on the film, it will dry with a hard edge.

If you have any trouble working on

an area as small as this, I will give you another lift. Take a hair of the dog that bit you and get a pair of glasses for *yourself*. I refer to Magni-Focusers, an Edroy product obtainable anywhere that they sell draftsman's supplies, or direct from Edroy Products Co., 430 Lexington Avenue, New York, N. Y. They are magnifying glasses fitted with an ingenious headband so that they can be worn over your regular glasses, if any, and not interfere with your ordinary vision. They come in different degrees of magnification. I have found the 5-power best suited to my needs, but you may not see eye to eye with me in that respect.

New Coccine is absolutely grainless so it will not affect the enlargement of your negative, and with its help you can lighten a shadow as much as you want, or even remove it altogether if that is your desire.

This is the season of snows over most of the country, and now is the time you have to get those wonderful pictures of it. You must get up early to get the best whack at a snowfall before it is messed up by people tracking around just where you want to make your picture. It is amazing how many people there are, and where they are all going. I know it is husky work, but well worth the hardship. All the world is a fairyland. All the dull, drab, un-sightly things have disappeared as if by magic. The sun sparkles in every direction from the gleaming mantle of white, and there is a tang to the air

that gives zest to the work. But you have to get up early to get it. I said that before, but since then I got to thinking.

I remember one Saturday night when it was snowing heavily, but it showed signs of clearing before morning. A bunch of us decided that if the sun was out in the morning we would get an early start and make a day of it battling out masterpieces. Day dawned bright and sunny and we were all there, eager to go—all except Dick Pope. We telephoned his house and his wife answered that he hadn't got up yet, and didn't intend to. The

beck with it. Down near zero, wasn't it? Bed felt better on a cold morning like this.

The rest of us proceeded and put in a glorious day of it. We made a lot of really worth-while pictures that day. Coming home, tired but happy, we were sorry for poor Dick who had missed it all.

And what had Dick been doing? After a leisurely nine-o'clock breakfast in the cozy kitchen with beautiful Virginia, he lighted a cigaret and looked out of the window to see what we were getting so excited about a few

hours earlier. A little effect in his back yard caught his eye and intrigued him. He got a camera, set the shutter, opened the window for a few seconds while he made the exposure, and then shut it down quick to keep out the cold. Brrr!

When we came around that evening to revile him and perhaps excite his envy, he showed us some prints already made, that eventually hung in all the great salons of the world. And he hadn't been out of the house. *Haec fabula docet?* Damned if I know. You tell me.

"Cockers"

Franklin I. Jordan





Left: "After the Storm" — by Richard C. Cartwright. This beautiful snow picture is effectively and simply composed. We particularly like the crisp, cold brilliance of the snow which is nicely offset by the delicacy of the trees in the background and the gradations of the sky and the foreground shadows. The shed is very well placed in the picture area, and the dark tree directly behind the shed adds a necessary accent in just the right spot. In fact, without the little dark tree the design would become commonplace. The simplicity of the foreground shadows is very fortunate. If these shadows had extended further into the picture, or not as far, the effect would be less pleasing.

Any reader of AMERICAN PHOTOGRAPHY is eligible to submit prints for comments and suggestions by Whit and Barbara Standish. Prints should be wrapped securely to prevent damage in transit. All prints should be addressed to CONSIDERING PRINTS, American Photographic Publishing Company, 607 Guardian Building, St. Paul 1, Minnesota. Return postage should accompany the prints. While every effort will be made to handle materials carefully and promptly, AMERICAN PHOTOGRAPHY cannot assume liability for loss or damage of prints.

"Considering Pictures"

by I. Whitney and Barbara Standish

Snow Scenes

THE SEASON WHEN SNOW is on the ground is a grand time of year for picture taking. Most of the year photographers struggle to organize nature's abundance into reasonably well-composed pictures. The trouble with nature has always been that there is too much of it. However, nature has produced its own remedy for this problem by providing snow which effectively covers and, therefore, simplifies much of the unwanted detail.

In spite of the fact that snow does materially simplify landscapes, making effective snow pictures is far from being the easiest photographic problem. The very simplicity of most snow pictures makes poor design and sloppy technique just that much more apparent. While every photographer will have his own personal approach to snow photography — here are a few of the problems we consider important:

Design — Since most snow pictures deal with simple tonal values it is most important that the design of the picture be not only simple but also definite and strong. A weak or confused design is a much greater handicap in snow photography than it is in most other types of landscape work.

Contrast — When snow is on the ground and trees and bushes are nearly black, effective control of contrast in

negative and print is essential. Soft and luminous lighting, and plenty of shadows on the snow, can help to introduce a gradation of middle tones. The photographer must also be careful to shorten his negative development time to compensate for the added contrast.

Texture — It is important that snow be photographed so it looks like snow and this is generally a problem in the rendition of textures. Side or back lighting will usually help. The worker should avoid making his snow prints too light since darker prints emphasize texture.

Lighting — We have already mentioned lighting, but it is so important in snow photography that it deserves a heading all its own. Snow pictures made on cloudy days without sunlight usually produce dull prints. Properly placed sunlight adds shadows and texture that are important. However, some of the best snow scenes have been

Right: "End of Day" — by Lee A. Ellis. The strength of this design is derived from the repetitious lines of the fence and foreground shadows. Many pictures have been made of fences in the snow, but this particular print offers variety by combining a rather subdued, but, nevertheless, important background with a strong and well-arranged foreground. The heavy diagonal shadow from the fence in the lower right-hand corner greatly helps to strengthen the design.

We are rather bothered by a lack of definiteness in the top of the fence which almost merges with the background. A line of fresh snow on top of the fence would have helped.



made when the snow is still falling, but in this case the lack of sunlight is more than made up by the drama and mood associated with the storm.

Following are a few hints for making better snow pictures from our own experience:

1. Choose a film with a long scale of gradation.
2. Use a light yellow filter to properly render the values of shadow in snow. Such shadows are predominantly blue and require a filter to show up well in the negative.
3. Give adequate exposure for the important shadows, but do not over-expose or the all important highlights will prove impossible to print.
4. Take pictures while the snow is still falling or just as soon as the sun comes out after the storm. Fresh snow is the most attractive and old snow has a used and beat-up look.
5. A readily portable camera is a great help in making snow pictures. A big camera and a tripod can become awfully heavy after being carried through a few snow-drifts.

Our principal illustration this month is "After the Storm", by Richard C. Cartwright. This print has been very successful in various exhibitions and salons, and it has recently been awarded first prize in the final judging of the 1943-49 Continental Print Competition of the Photographic Society of America. Notice particularly how well Mr. Cartwright has handled the previously mentioned problems of design, contrast, texture, and lighting.

Our other illustrations all show a real understanding of the many problems of snow photography. In some of them the arrangement and technique are excellent; whereas, others leave room for improvement. In commenting on these pictures, we have tried to objectively present not only why we like the picture (and we do like all of them) but also how we believed improvements might have been made, either in taking the picture or in making the print. Such comments should never be taken as a final judgment, as they are, after all, only the considered opinion of two people. But the value of such comments lies not in their infallibility but more to serve as a stimulation to encourage others to think more clearly and objectively when making pictures.



Above: "February" — by Gisela A. Ellis. This picture capitalizes on the beautiful effect of hazy sunlight on crusted snow. The photographer was particularly skillful in placing the two dark lines in the foreground so that they not only add emphasis and variety to what otherwise might have been an empty area, but also so that they repeated the lines between snow and barn in the middle distance.

Our only suggestion for improving this picture is to print the sky somewhat darker. As it is now, the sky area is weak and, since it is well composed, it could stand somewhat more emphasis.

Left: "Harbinger of Spring" — by Benjamin H. Hunt. We particularly like the soft poetry of this print. The tonal relationship between the water and the snow is excellent, and the horizontal tree shadows in the foreground serve as an appropriate balance for the vertical trees.

If the photographer had been able to find a camera position that would have eliminated the large tree trunk in the right foreground, the design would have been greatly improved. A deeper printing of the entire foreground area would help to accentuate the shadows on the snow.

Below: "Winter Reflections" — by Leonard Ochtman, Jr. The chill and brilliance of a winter stream has been well portrayed in this picture. It has sunlight splattered all over it; yet there is a unity of design in spite of the many spots of brilliance. The horizontal line in the distance is an important counterpoise for the well-spaced verticals. We are particularly intrigued by the tonal richness of this print.

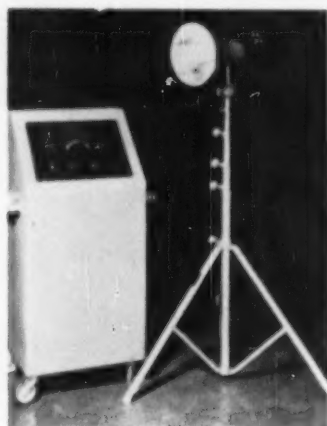
Our only regret is that there is not more of the right-hand bank of the brook visible in the print. We also feel that in a future printing, the light spot in the lower center, should be somewhat darkened.



Notes and News—

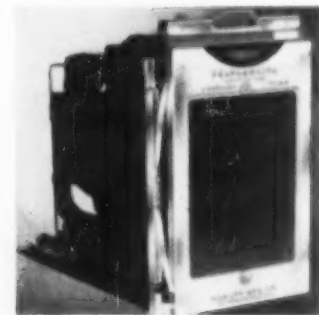
(Continued from page 4)

the graphic arts, and also plastic tapes, recording blanks, and other plastic products. U. S. distributors are the Gevaert Company of America, New York City.



Pun Tech Speedlight

1. For medical and technical applications, the Anco Pan Tech speed light has been announced. The power supply, which is housed in an attractive console, can flash a wide variety of tubes providing a choice of size and shape for the light source. Up to three lights can be flashed simultaneously. Controls allow high power single flash at 350 and 1000 watt/seconds, or the tube may be flashed repetitively with speed ranges of 1/10, 1/24, and 24-64 per second. Repetitive flash may be synchronized with movie cameras. Complete literature is available. Distributed by J. G. Saltman, Inc., 480 Lexington, New York 17.



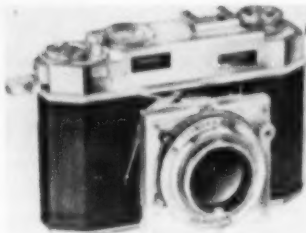
Feather-Lite Adaptor

Feather-Lite adaptors are being made again by Fidelity. These simple devices convert foreign cameras such as Voigtlander, Ricomax, etc., from centimeter film sizes to the corresponding American sizes. Said to be easily inserted. Made in two sizes: 9 x 12 cm. for 3 1/4 x 4 1/4 film and 6 1/2 x 9 cm. for 2 1/4 x 3 1/4 film. In stock at most photo stores.



Ventura Deluxe

2. Three new cameras from the Agfa Camera Works, Munich, have just reached the U. S. market. These are the Ventura, the Ventura Deluxe, and the Karomat 36. The Venturas are folding cameras, taking 12-2 1/4 x 2 1/4 pictures on 120 roll film. The Ventura has a coated 1:4.5 Anastigmat Agnar lens, and Vario shutter with speeds to 1/200th. Flash synchronization is built in. The Deluxe is fitted with a coated Anastigmat Apotar 1:4.5 lens and Prontor 5 delayed action shutter with self-timer and speeds to



Karomat 36

1/300th. The Karomat 36 is a 35-mm camera using standard film cartridges. Fitted with 1:2 Schneider Xenon lens and compur rapid shutter with speeds to 1/500th. Synchronized for flash. Coupled split-image rangefinder. The film is transported by a rapid acting lever, which automatically rocks the shutter and moves the exposure counter. The Ventura sells for \$35, the Ventura Deluxe at \$49.95, and the Karomat 36 at \$179.50. All prices include excise tax.

3. Graflex, Inc. have just purchased Photometric, Ltd. at Toronto. Photometric has been noted for the repair of photographic equipment, and will be operated as a Graflex service center for Canadian customers. Service on other makes of cameras and equipment will be continued. New president of Photometric is H. A. Schumacher, vice-president of Graflex. Photometric, Ltd. is located at 83A Yonge Street, Toronto, Ontario.

4. The Eastman Kodak Company has just issued three booklets of general interest. The first is "Kodak Materials for Aerial Photography." Then there is "Wintertime Picture Taking" and "Storage and Care of Kodak Color Films." All three are punched for insertion in the Kodak Photographic notebook. The first two books are priced at 50c and 25c respectively, may be obtained at almost any photo shop. The third is free and may be obtained from the Sales Service Division, Eastman Kodak Company, Rochester 4, New York. Then there is a new Kodak

Dataguide, a dial calculator giving correct developing times for Kodak films and developers as well as information on agitation and replenishment of developers. Priced at 50c at camera shops.

5. Making black and white prints from color transparencies has always been rather a tedious process. In general, the only satisfactory way to accomplish this has been to make a black and white negative from the transparency, and then make the prints. Photographers will be interested to know that Gevaert has announced a new "Diaveral" paper which permits monochromatic prints to be made directly from color transparencies.

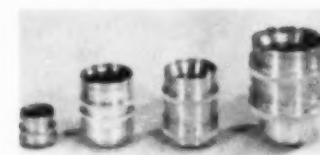
The color transparency is projected on Diaveral paper under ordinary darkroom conditions and the usual safelight. The first developing solution produces a temporary negative image. The second solution causes the image to transfer to another layer on the paper base and at the same time the negative image partially disintegrates. On completion of the transfer time, the paper is held under running water and the negative image washes away, leaving a faint image on the paper. A few moments immersion in a conventional toner produces a brown toned print.

Kits of paper and chemicals for amateur and professional use will be available in the very near future. It is believed that several grades of contrast will be available, and the paper will be produced in all standard roll and sheet sizes.



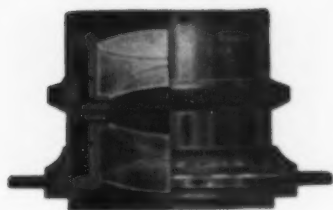
Ansco Reflex Kit

6. A rather elaborate package of plexiglass and knotty pine holds the Ansco Automatic Reflex Camera outfit. Such attachments and accessories as flash gun, filters, exposure meter, gadget bag, lightbulbs, film, case, and other items are included. Total price is \$350, including excise tax.



B&H "T" Stop Lenses

7. A new series of 16mm motion picture lenses is being developed by Bell & Howell, Chicago. Of especial interest is the "T" Stop calibration of apertures, and the fact that there is constant degree of (Continued on page 54)



Goerz American PHOTO-LENSES

— An American Product Since 1899 —

To help you in the selection of the proper lens our long experience is at your service

GOERZ DAGOR

DOUBLE ANASTIGMAT f:6.8

The standard by which a vast number of satisfied lens users prefer to judge lens performance, the DAGOR combines in one lens —

1. A perfectly corrected Rapid Anastigmat.
2. A wide-angle lens at smaller stops.
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It truthfully records pictures with fascinating accuracy and brilliance, in clear and undistorted detail to the very corners of the film — for interiors, exteriors, commercial and amateur work, scenic views, groups, banquets, color film, copying, enlarging.

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A Wide Angle convertible Lens having a comparatively high f value for easy focusing and producing a crisp rectilinear image of 100 degrees maximum field at the smallest iris diaphragm aperture.

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The ideal apochromatic process lens, for color separation with perfect register in the final process; also for black and white commercial work.

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Sizes 4" and 5" for color separation blow-ups from 35mm and larger color film.

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A new six element high quality lens for the 16 and 35 mm film camera. Corrected for all aberration at full opening, giving highest definition in black & white and color. Made by skilled technicians with many years of optical training.

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focus 6" (150 mm)

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Notes and News -

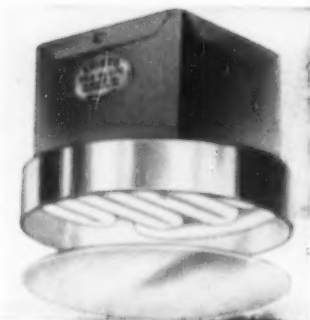
(Continued from page 52)

magnification between one lens and the next. Each lens has a degree of magnification 1.4 times that of the next smaller lens. The focal lengths of the new series, when complete, will be 7 inch, 1 inch, 1.4 inch, 2 inch, 2.8 inch, 4 inch, and 5.6 inch. Of these, four are now available: 7, 2, 2.8, and 4. The others will be announced later. All lenses are coated, have click stops and focusing mounts. The three longer focal length lenses are by Taylor Hobson Cooke.



Auricon "Cine Voice"

9. Here is a 16mm sound camera which may be handheld! The new Auricon "Cine Voice" camera has 100 ft. film capacity, AC powered motor, variable-act gyanometer, and recording amplifier with dynamic mike. All this is in one case. The manufacturer claims that operation is so quiet that no audible sound pickup will occur even where the camera is within 3 feet of the mike. Price is \$695.00, complete.



Aristo Enlarger Lamp

10. The Aristo Cold Grid enlarger lamp is now available in sizes for practically all standard models of enlargers, including the Omega D-11. The manufacturer claims greater softness of print quality as contrasted to results obtained with condenser equipment.

11. Owners of pre-war Kodatron Speed lamps may have their units converted to use the new FT-403 flash tube with

separate modelling lamp. The changerover is recommended by Eastman because of greater efficiency and because General Electric no longer lists the old FT-402. Owners may send the socket housing and cord to the Kodak Repair Department at Rochester. The total cost of the conversion is \$43.75 including the new flashtube, modelling lamp, and new socket.



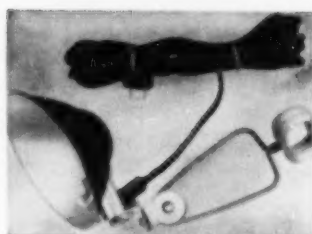
New Auto-Rollei

12. A new Auto-Rollei camera is here. Said to incorporate the first major changes since 1937. First improvement is the use of the new flash Compur shutter. Flash bulbs are synchronized to 1/50th second. Connections are made at a receptacle which occupies the position where the cable release was located. The cable release socket has been moved to the other side and combined with the push-button release. Hood design is new, and eye-level focussing is now possible. Priced at \$275 with Tessar lens, and \$235 with Xenar lens. Distributed by Burleigh Brooks.



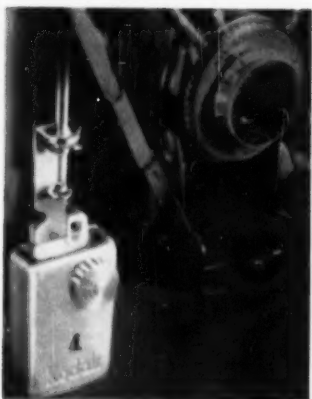
New Safelight

13. An interesting darkroom safelight is manufactured by Golden B Manufacturing Co., 11300 St. Clair, Cleveland 8. The lamp is cylindrical, 8 inches long and 6 inches in diameter. The cylinder consists of three segments of colored plastic, which may be turned to the correct color... red, yellow, or green. The two colors not in use are shielded by the steel housing. Colors will not fade, and the unit is said to be durable and efficient. The entire assembly rotates 360 degrees on its mounting; may be used horizontally or vertically. Priced \$9.75, tax included. Available at many camera shops.



Kalart Extension Flash

14. Kalart announces a new light weight flash extension unit for midget flashbulbs, the "Kalite". The unit includes a built-in ejector and a test lamp to check continuity of the electric circuit. 20 feet of cord are provided, and the cord may be removed for storage inside the reflector. Rubber grippers prevent marring of surfaces to which the unit may be attached. Retail \$10.95 at camera shops.



Kodak Auto Release

A handy little gadget is the Kodak Auto Release. The device operates with a cable release and trips the shutter automatically after a predetermined period of time, up to 10 seconds delay. Priced at \$4.25 including tax, and available through dealers.



15. A protective sprayed coat for photographic prints is one of many uses for Bridgeport Plastic Coat. It is especially useful where retouching has been done on the print. The spray is automatic, just press the button. Dries in less than a minute, gives a clear, waterproof finish. Made by the Bridgeport Brass Company, Bridgeport, Conn. Price is \$1.09 for a 12 ounce unit.

**PROCESS EKTACHROME?
PLEASE NOTE:**

Eastman Announces New Developing Technique

Effective immediately, a new 75° F. processing technique for Kodak Ektachrome Film is being recommended by the Eastman Kodak Company. This new technique reduces the processing time for Kodak Ektachrome Film approximately 25 per cent, and allows slightly greater temperature tolerances than have heretofore been recommended.

The company feels that the changed procedure will offer a number of advantages to both photographers and commercial processors. Savings in time and labor alone should allow the commercial processor to get in at least one extra processing per day. The photographer who carries out his own processing can materially decrease the time interval between the completion of studio work and the examination of the finished film. With the new technique it is possible to examine the developed negative image only 14 minutes after processing is started.

The same chemicals and solutions are used in the new procedure as with formerly recommended processing at 65° F. Temperature tolerances have been adjusted, however, so that all chemical solutions and washes, except the first developer, are used between 73° F. and 77° F. The first developer must, however, be used at 75° F. with a temperature tolerance of plus or minus one-half degree. The new temperature will be, Kodak feels, much easier to maintain and should prove especially beneficial during summer months when expensive refrigeration apparatus was formerly required to make color film processing possible in certain parts of the country.

Agitation required during processing is now recommended as once every minute rather than once every two minutes.

In announcing the new processing technique Kodak pointed out that several precautions should be taken with the new processing recommendations. Following both the rinse and hardening operations after the first development, for example, the film should be continuously agitated for the first 15 seconds. This is particularly important to avoid scum on the film. It is also necessary to have a good flow of water in the first rinse tank.

To acquaint both photographers and commercial processors with the directions for processing at the higher temperature, a summary of the new steps for processing Kodak Ektachrome Film at 75° F. is being printed on the reverse side of the supplementary data sheet packaged with the film. The 75° F. processing time table will also be packed in Ektachrome Chemical Kits. Film boxes will be identified by a sticker calling attention to the special processing instruction inside. For Kodak Ektachrome Roll Film, the after-exposure sticker will carry notice to the effect that the film may be processed at 75 degrees F.

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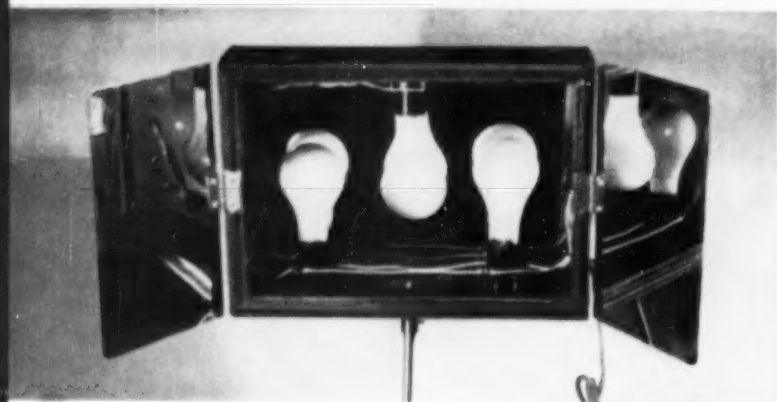


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Here is an unusual and useful gadget you can build at home. No special tools or expensive parts are needed. Just follow the simple step-by-step instructions and you can't go wrong. To the left we see the combination dryer and flood lamp set up for lighting.

a combination **DRYER & FLOOD LAMP**

by *M. M. Kramer*

What wouldn't you give, sometimes, to speed up the slow, airdrying process of your ferrotype plates? Or, perhaps, you have tried to build a heater and scorched your prints, or obtained a poor gloss because the prints peeled off too soon.

And what wouldn't you give, sometimes, when you are taking indoor shots by floodlights, to have a handy, compact little unit, which would throw a large amount of light just where you want it. And yet custom-made equipment is expensive and even reflector units come high.

With this simple, easily constructed, dual purpose unit, you can double your

enjoyment in both taking and making pictures. And the few materials necessary are either at hand or easily obtainable for a nominal price.

The first step is to assemble the frame with a few brads or small nails to hold the four pieces together. Several pieces of wood of odd sizes went into the construction of mine because an old box happened to be available and with a few additional pieces it served the purpose admirably. As in all home-built equipment, ingenuity in using materials at hand can save time and money.

The back of the frame is part of the reflector system. It may be a discarded

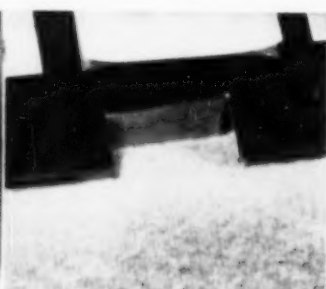
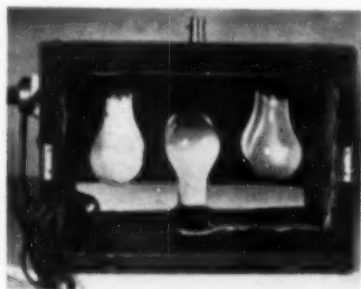
chrome ferrotype plate, or any piece of metal with a high reflecting surface will serve. Sheet tin will do as well.

The next step is to install the three base sockets for the lamps. It is better to use porcelain sockets since they are more serviceable, and can stand long exposure to intense heat. These sockets are mounted with screws driven into the frame, and the wiring is simple and straightforward. See diagram.

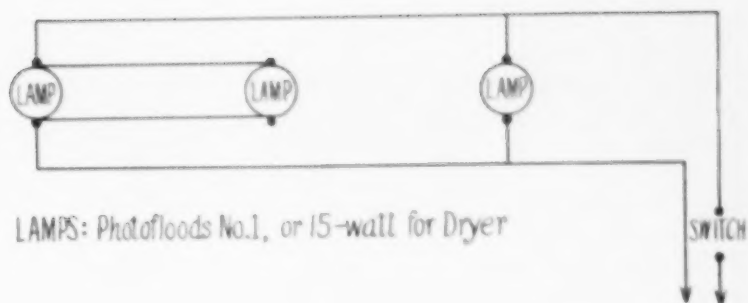
Since the floodlamps get very hot, make certain that the wires run along the box sides as far from the bulbs as possible. The use of small cup hooks or screweyes will aid in keeping the wires clear of the hot bulbs.

This is the completed box with wiring, sockets and reflector in place.

Here how ferrotype plate is cut to allow for hinges.



Here is this simple wiring diagram. Make sure your switch can handle 15 amps.



LAMPS: Photofloods No.1, or 15-watt for Dryer

If a good grade of wire is used, this unit will last a lifetime. Since the wire will be exposed to considerable amount of the heat thrown off by the flood-lamps, it is recommended that you use a form of wire which was developed during the war and which is readily available today. This wire has glass fiber thread insulation instead of the usual rubber and cotton covering, and will withstand the high temperature well.

Although not strictly necessary, a heavy-duty switch is convenient and it can be mounted on the side of the box. This switch should be capable of carrying about fifteen amperes, as the photofloods draw a large amount of current.

Having wired the frame, all that remains is to prepare the side doors which are useful in directing areas to be lighted, and which shield the camera lens from direct glare. These can

easily be made by cutting a standard chrome ferrotype plate in half so that each will measure seven by ten inches. These are mounted on the sides of the frame by hinges. It is important to cut a groove in the sides of the box and sink the hinges flush with the top of the frame so that the doors can be folded over and used as an upper covering in the ferrotyping operation.

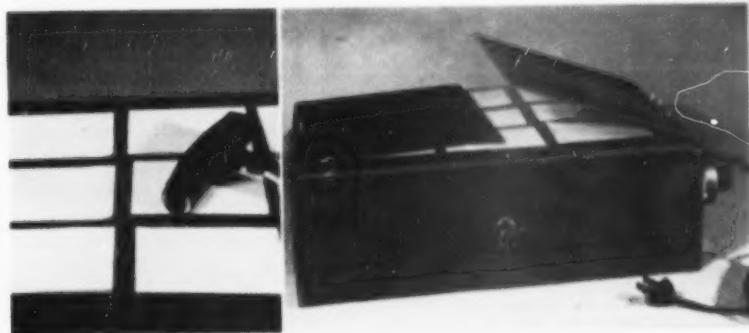
For typical operation, three number one Photofloods are used in lighting a subject, although, if desired, larger sized Photofloods can be inserted. For most practical purposes, indoors, the smaller size will do.

The box itself can be mounted either on a tripod stand or placed on any other convenient support, such as a chair or table. A small bushing or block with a hole drilled in it can be attached to the frame to serve as an adapter for a tripod stand, and a sturdy, cheap pan-head may even be in-

corporated to increase the flexibility and ease in lighting.

This unit can be used for heating and drying and ferrotyping purposes by simply inserting low wattage ordinary incandescent lamps in the sockets in place of the Photofloods. Prints are squeezed onto the ferrotype plate (note two small cutouts for the hinges) and the plate is placed on top of the box. The doors are folded over and held firmly in place by a small weight or book. These will serve to prevent the prints from peeling off the ferrotype plate before they are fully dry and in this way your glossy prints will have an even gloss unmarred by cracks and dull spots.

This dual-purpose unit will afford you much in the way of pleasure, profit, and convenience and will be well worth the small amount of time and money spent in its construction.



Prints are squeezed onto ferrotype plate in the usual manner. Blot off excess moisture for a faster dry.

Reflector doors are closed over squeezed prints. With books placed on doors as weights, prints will not peel off until dry.

Notes from the Laboratory —
(Continued from page 6)

replay is that bit of paper with some assorted shadows upon it. If the final print is good, it may have been exposed in a discarded shoe box without in the least detracting from its quality!

Camera Idiosyncrasy

Why is it that such crude methods often result in such excellent prints?

Well, first of all, there is the personal factor. You will have noticed some fellow photographer, whose finances limit him to just one camera, and that an inexpensive one. He uses a lot of home-made accessories, but he brings back some of the best work you have seen. Then, too, you know another who has plenty of money. He has a camera for each type of work, he has all of the best accessories, he disregards costs and shoots by the dozen where the rest of you make a single shot; yet it seems he just cannot get into his work that last final touch which makes it really good.

The difference is not one of personality at all. Ask any gun shooter and he will tell you that good shooting is done with a gun which "fits you," and one which is perfectly familiar. You may try a dozen guns all of identical design, but only the particular one with which you are familiar will deliver the targets. Test on with cameras. If you use one camera consistently, you will soon learn, almost unconsciously, to make allowances based upon actual performance. This becomes a habit, and soon you will make corrections without thinking about it. When you have to try to keep in mind the peculiarities of three or four cameras you become lost, and have to drop back to dependence upon mere mechanical factors.

Film Latitude

Then too, there is the great factor of film latitude. Film latitude is often misunderstood and abused, but it is the one thing which makes possible modern photography.

The simplest explanation of film latitude is the description of an experiment which you may perform if you like. In fact if you will do it, you will find future exposure less of a problem.

Using round figures, it is possible to make a negative with a tonal range of 1:500; it is difficult to produce a print upon paper with much more than 1:50. Assuming the exposure-density curve to be a straight line, it should then be possible to make two exposures, one of them ten times as great as the other, and to print from these negatives, two identical prints. One of these would utilize the shadow end of the exposure curve and the other the highlight end, but both of them should have the full 1:50 tonal range. The fact that we have compression at both ends of the curve prevents this in actual practice, although we can come quite close to it.

On the other hand, we have paper available in various degrees of contrast, which will to some extent offset the compression, and enable us to work at the extremes of the exposure curve.

In practical application it will be found that if two exposures are made, one of them fifty times as great as the other, and both developed identically, the experienced amateur will have little difficulty in producing two prints from them which are superficially identical.

To perform this experiment, set the camera upon a tripod. Determine the "metered" exposure, and start with $\frac{1}{2}$ of this as unit exposure. Then make the exposures of 1, 2, 4, 8, 16, 32, 64, and 128 times this unit, if you use an 8-exposure roll. If you have 12 exposures available on the roll, start with $\frac{1}{2}$ of the metered exposure as the unit, and add 2:6, 5:12, 10:24 and 20:48.

If possible choose conditions which will permit an initial exposure on the order of 1:100 at $f/16$, then use combinations of aperture and speed to make the exposures. This will eliminate exposures of too great length toward the upper part of the scale. Using ordinary ortho rollfilm we have in our own experiments obtained acceptable (although not identical) prints through a range of 1:512.

In printing, make full use of paper grades and exposure time. If you work carefully you will have little difficulty in matching up the prints from $\frac{1}{2}$ normal to 16 times normal, which represents a range of 1:84. This is the reason you can still get good pictures when there is so much variability in the amount of light which finally falls upon the film!

Grid-screen Stereo

So many inquiries have been received concerning this type of stereo that we shall try to outline the simplest experimental procedure. It must be understood that professionally the equipment used is more complex, and in many instances special film bases and other special items are required. However, it is possible for the amateur to try out the method with comparatively simple equipment. Unfortunately the cost is not low.

Briefly the method consists of making the exposure in a camera equipped with a lens whose diameter exceeds three inches (clear aperture); with a special line screen and pressure plateholders.

Although the diaphragms should be placed in the plane of the iris, it is possible to work with it before the lens. The apertures should be, if possible, equivalent to the normal $f/16$ or $f/22$ aperture of the lens employed. As there are two openings, the exposure will be based upon double such value. That is, exposure $f/11$ when using the 16 size, or exposure $f/16$ when using the 22 size. The apertures should be cut so that their outer edges come just within the outer edge of the lens, and the centers of the apertures should be at least $2\frac{1}{4}$ inches apart.

One of our early experimental cameras was equipped with an $f/4.5$ lens of 46 cm focal length. The $f/2$ apertures were 2.18 cm in diameter, spaced 6.5 cm apart, making the overall edge-to-edge distance 8.68 cm, although the effective diameter of the lens at $f/4.5$ was 10.66 cm. This enabled us to avoid the distortion of working at the extreme lens edge.

The camera used was an 8 by 10 heavy-duty view camera, but even then it had to be equipped with a sub base and extra lens support, as the lensboard would not hold the heavy lens used. This camera was equipped with a supplementary back to take 4 by 5 holders. These holders were of the pressure type in which the line screen was substituted for the plain glass.

Line Screens

The line screens used must be specially made. The ones we used were made for us by a maker of diamond engraved scales used

in laboratory instruments.

The spacing of the lines depends upon the thickness of the glass used and the distance between the two lens apertures. As a compromise is necessary, we selected the distance of the lens from the film when focused upon an object twenty feet from the camera. The thickness of the glass was measured and the angle of the two central rays passing through the two apertures and meeting in the center of the film surface, was computed. At a distance from the film surface equal to two-thirds of the thickness of the glass, the distance between the two legs of the angle is the width of the line desired.

Even though there will be a slight overlapping of the line images for other distances, the effect is not seriously disturbed.

When the equipment is ready to use, place a green filter over one aperture and a red filter over the other. Examine the image upon a piece of ground film held against the screen to be used. If the screen is correctly sized and positioned, there will be seen a series of fine, alternating red and green lines. If there are either white or dark lines interspersed, the screen is not in correct position. It can often be corrected by placing thin shims of flawless celluloid or other transparent plastic between the screen and the film, to alter the screen distance.

For more serious work, it is necessary to build into the camera an adjustable screen carrier, similar to those used in photoengraving cameras. When this is done, the screen distance is adjusted for each subject. Incidentally, in such cases the screen has the engraved side facing the film to permit working adjustment, and the film is carried in an open holder. It is suggested that a book-type holder be used, lined with double-faced scotch tape, and that the film be smoothed out upon this tape to hold it firmly in the focal plane.

Viewing Screens

We found viewing results to be somewhat improved by using a viewing screen in which the spaces were somewhat wider than the opaque lines, although in the camera the evenly divided screen gave us the best results.

Making the Negative

The procedure is normal once the screen has been set and the lens provided with its special diaphragm. Great care must be taken that the two apertures are strictly horizontal with respect to one another. The exposure base has been explained. The development and all processing is normal up to printing. The print is a transparency upon glass. Film is dimensionally too unstable to be satisfactory.

Finishing

The print is placed behind a viewing screen. Be careful not to have the image and screen face to face. Separation is necessary to produce the desired result. Move the screen and the print relatively to one another until there is no suggestion of pattern. This indicates the alignment of lines in screen and image. Then move the screen sideways until there is a distinct appearance of relief. Bind the two together.

The Finished Grid Stereo

It must not be expected that the grid stereo will have anything like the clear-cut relief of the orthostereogram. The relief which is seen is difficult to describe. It is quite

(Continued on page 73)

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Technical Data Section—

Reducing the Swelling of Dye Transfer Matrices

by C. E. Ives and C. J. Kunz*

THE DYE TRANSFER PROCESS

of making color prints the final image is produced by combining the three component dye images on a single "blank" which consists of a supporting sheet of film or paper bearing a dye-receptive coating of gelatin. The blank usually bears no image either visible or latent prior to the dye transfer, but merely absorbs or "imbibes" the image dye wherever it occurs in the three printing matrices with which it is brought into contact successively. The gradations of dye concentration which form an image must therefore exist in the printing matrix.

In one commonly used type of matrix, the gradations in capacity to take up and transfer dye which constitute the image, consist of local variations in the amount, and therefore of the thickness, of the gelatin layer. Starting with a uniform layer of unhardened photographic emulsion, such a matrix is formed, following exposure, by treatment first with a so-called tanning developer which effects a hardening of the emulsion gelatin in the immediate vicinity of such silver halide grains as undergo development, and then with a hot water etching bath which dissolves away the emulsion

gelatin which has not been hardened in this way. The exposure is made from the back of the film, and the sensitive emulsion contains a dye or pigment to limit penetration of actinic light so that the depth of the layer of tanned gelatin increases with exposure.

The tanning is effective in preventing dissolution of the image portions in the hot water, but does not harden the gelatin emulsion sufficiently to prevent it from swelling greatly. The precise degree of swelling is determined by the balance of a number of factors which it is not proposed to treat here. Suffice it to say that, under conditions which are sometimes employed, the degree of swelling is great enough to have bothersome consequences.

A gelatin image in this initial strongly swollen condition cannot be used in the dye-transfer operation, but must first be dried with care to prevent water spotting, and then re-wetted. At the latter stage, extreme swelling and softening are prevented by avoiding high bath temperatures. However, considerable difficulty is sometimes met in carrying out the drying. If the swelling is severe, the gelatin is very tender and therefore requires great care to prevent scratching. Preparation for drying involves the removal of loose water which, with such a

tender image, must be effected without wiping or blotting and is, therefore, somewhat uncertain of outcome unless a spreading agent can be used.

Even if all loose water is removed at the start of drying, badly swollen gelatin layers, in the course of drying, may undergo syneresis, an abrupt spontaneous process of consolidation which is accompanied by the exudation of a watery liquid at the surface. This phenomenon, which is observed also with other colloids than gelatin, probably occurs when the size of interior liquid-filled spaces is reduced by contraction of the distended gel structure on drying or in some cases even aging. If it occurs too rapidly, loose liquid appears again on the surface of the film.

The exudate from the matrix gelatin may contain protein material which will be deposited in streaks wherever drops run off over the surface of the partly dried matrix. It has been found that this solid material adheres, and later gives evidence of its presence, by taking up and transferring dye in the same manner as the gelatin of the image proper but, of course, in the form of offensive color streaks and blotches.

Evidence of syneresis is not observed in the usual manipulation of films at 68° F., nor with strongly hardened materials at higher temperatures. In these cases structural modification in the gelatin is small because little swelling has occurred and, therefore, the reverse process of shrinkage during drying takes place in an orderly and gradual manner.

It was thought that the difficulties encountered in drying the matrix might be largely avoided if the swelling could be reduced substantially before drying was begun. This should be accomplished without objectionable effects on the image and without leaving residues. It was expected that the remainder of the shrinkage which would occur in drying would then be so small that any sudden collapse would be precluded.

The use of an alcohol bath has been advocated for this purpose with the claim that the gelatin is set chemically. In the present case it was desired to avoid any unnecessary alteration of the gelatin or the

(Continued on page 71)



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Camera Clubs around the world

Albany, New York, Albany Camera Club

This group put a new twist on their regular auction sale on January 4th. Members brought in photographic equipment no longer used and swapped with other members. Each piece of equipment was tagged with the minimum price the owner would accept, and in cases where no trade was completed, the piece was auctioned off.

Atlanta, Georgia, Dixie Camera Club

The Third Dixie Salon will be held at the High Museum of Art in Atlanta from July 2nd through July 16th, 1950. Open to all photographers, P.S.A. standards will be followed. Monochrome prints and color slides will be shown. All entries must be in by June 15th. Write C. F. Luce, Jr., 517 Trust Co. of Georgia Building, Atlanta 3, Ga.

Auburn, Washington, Washington Council of Camera Clubs

Miss Bernice Fero of the Evergreen Camera Club of Seattle was a double winner in a recent competition. Her black and white picture, "Reflective Mood" was selected as best of 1949 and her slide "Trail Riders" was judged the best color. Both pictures were taken at Lake Louise, Canada, where Miss Fero vacationed.

Berkeley, California, University of California Photography Club

Newly-elected officers of the club were announced recently. Joanne Rigdon, the first woman to hold the office, was elected president. Jim Faerst was elected vice-president, Larry Harrison, secretary, and Fred Kraft, treasurer.

Boston, Massachusetts, Boston Camera Club

The cine section of this group, starting its third year of activities, reports steady growth and progress. Starting with 16 movie-makers, they have tripled their membership, and plans have been made to expand activities, including talks by movie experts, showings of outstanding films, and film evaluations.

Buffalo, New York, Science Museum Photographic Club

A full and active year has been scheduled by this club. Meetings will be held every Tuesday night with the following programs: Print Competition, Educational Night, Special Feature, Color Night. Color-slide competition will be held bi-monthly and print competition monthly.

Chicago, Illinois, Chicago Camera Club

On January 11th, the club saw a demonstration of the repeating flash by Mr. J. T. Kennedy of the Triumph Manufacturing Company. Members experimented with celophane for color effects in speed lighting.

Chicago, Chicago Cinema Club

An instruction class for technical information and beginners has been scheduled to meet 30 minutes before the regular meetings under the direction of Mr. Arthur Kadow.

Technical Advisor. The club's special events section will make tours to film equipment manufacturers and processors, as well as outings for nature studies and recreation.

Chicago, Green Briar Camera Club

Nicholas Hax, considered one of the world's outstanding experts on composition, has agreed to deliver a series of four lectures to the club, beginning March 29th. Mr. Hax holds the title of fellow both in the P.S.A. and Great Britain's Royal Photographic Society.

Chicago, Jackson Park Camera Club

On Thursday, February 9th, Mr. Earl Krause will demonstrate techniques in stereographic color slide making. He and Miss Edith Wells had stereo slides accepted in the First Annual Salon of Three Dimensional Photography.

Christchurch, New Zealand, Christchurch Photographic Society

The Seventh New Zealand International Salon will be held from the last week in October to the second week in November, 1950, in the Christchurch Art Gallery, after which it will tour the country. Pictorial only, the Salon will have both monochrome and color sections.

Columbus, Ohio, Central Ohio Camera Club Council

Winners in the 1949 Inter-Club Competition were Weldon Shaw of the Columbus Color Club for his portrait "Girl and Dog," Fred Tietzel of the same club for his slide "Arc Welding" and Marcus Orr of the Chillicothe Club for his "Grand Teton."

Coral Gables, Florida, Coral Gables Camera Club

Forty-seven men and women, club members and guests, enjoyed the banquet celebrating the first anniversary of the club on December 15th. Presentation of the "Print of the Year" was made in Frank Conlan for his picture "I Dare You."

Evansville, Indiana, Fine Arts Camera Club, of Evansville

The club recently moved to new quarters at the Evansville Community Center, where they have the advantages of much larger space, provision for displays and proper showing of both slides and moving pictures, a large darkroom, access to a 400 person lecture room and even a modern kitchen.

Houston, Texas, Houston Camera Club

Winning out over a field of twenty, a flower print by Joe Weber took top honors in the "Favorites of 1949" competition. Earl Gilbert won second place and Hi Willis third.

Indianapolis, Indiana, Indianapolis Camera Club

January was a busy month for this group. The four meetings during the month featured the following programs: Print Analysis and Business Meeting, "Problems of Industrial Photography," "Self Portraits" and

a showing of color slides of the West by Robert Annis.

Jamaica, New York, Jamaica Camera Club

Cooperating with the New York City Water Department, the club postponed its January Print Competition during the current water shortage. The Salon Committee, directed by Irving Schlackmar, has proposed a miscellaneous Competition next month so that members can submit any prints they have already completed.

Johannesburg, South Africa, Johannesburg Photographic & Cine Society

A portfolio of outstanding South African prints was recently reviewed with unanimous praise by a panel of American critics. Participating photographers included A. D. Benoussan, Nat Cowan, Gordon Douglas, Edward Feit, Vivian R. Hicks, Karel Jan Hora, John B. Jellie, Bernard Kahn, Will Till, G. F. van Tonder and the late B. J. Kloppers.

Joliet, Illinois, Joliet Camera Club

On January 4th, the club heard a lecture on Landscape Photography by Ann Pilger Dewey, illustrated with Mrs. Dewey's salon prints. A monochrome print competition, "Young People and Adults" was judged by Mrs. Dewey.

Kalamazoo, Michigan, Kalamazoo Camera Club

This group has announced its schedule for February: on February 1st, a lecture on mounting and spotting prints by Jim Bobb and on the 15th an advanced competition of miscellaneous prints. The closing date of the Second Kalamazoo International Salon falls on February 27th.

Liverpool, England, Liverpool Amateur Photographic Association

Members of this group who were exhibitors at the recent London shows are Mr. W. A. Hooker, A.R.P.S., pictorial prints; Mr. F. W. Stafford, A.R.P.S., record prints; and Mr. D. E. Smith, color transparencies.

Menlo Park, California, Camino Camera Club

To help determine the chief interests and aims in photography, this club's officers recently prepared a questionnaire for members. The questions were divided by topic: type of pictures, exposure meters, favorite films, developers, contact papers, cameras, darkroom facilities, interest in salon exhibitions, instruction classes, etc.

Montreal, Canada, Montreal Camera Club

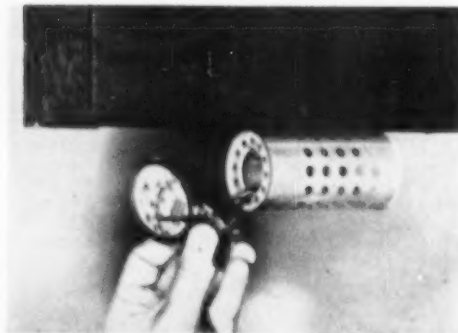
During January, the following subjects featured the club's meetings: on the 5th, Color Technique; 9th, Print Finishing; 13th, Portrait Technique; 16th, Print Criticism; 19th, Color Slides; 23rd, a lecture by Mr. B. Carson; 27th, Group Portrait Technique; 30th, a lecture by an Eastman Kodak Co. representative.

(Continued on page 72)

Radio Tube Shield Keeps Thermometer in Place

Accurate thermometers of the type shown are expensive and deserve adequate protection.

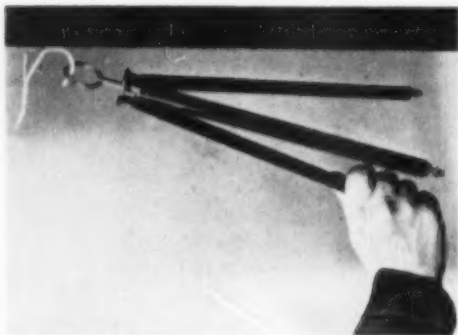
A discarded radio tube shield may be fastened to a wood support in the dark room, using a thin screwdriver through the shield openings, providing a safe and convenient holder.



Tripod Kept in Proper Location with Display Holder and Hook

A tripod display holder from your camera shop and a closet hook provide the means of locating your tripod where it is always available and not under foot.

The tripod display holder may also be used with a strap to carry the tripod suspended from the shoulders.

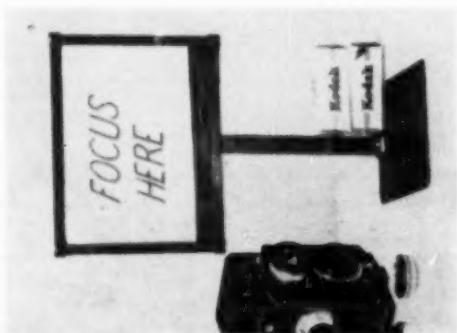


Store Price Marker Makes Convenient Focusing Arrangement

When taking a number of pictures inside or outside where conditions are such that there is no clearly defined item to focus on, a metal price marker obtained from a department store as illustrated will be of assistance.

It is only necessary to insert some printed form of fairly large type in the price marker and then place the marker where focusing is desired.

The one shown takes a cardboard about 5 x 7 inches but other sizes are available.



Large Corks Easily Converted to Photo Holders

Large corks—such as used for thermos bottles—are ideal as photo holders for use at the party table where photos are to be given as favors or like occasions.

The cork is slotted as shown and holds a picture of 2 x 3 inches or larger.

Corks may be painted for added effects.



"Recipe Card" System Is New AP Feature

Ever wished that you'd cut out and saved some formula or hint or gadget that you read in a photographic magazine? AMERICAN PHOTOGRAPHY is determined to do for you the things which you've always intended to get around to . . . speaking of the photographic field, that is. The READER'S SERVICE DEPARTMENT is one example of this. Now there's a new wrinkle in these pages:

Each month you will find a page similar to page 62, opposite this one. There will be ideas, formulas, gadgets to cut out and paste on standard 4 x 6 index cards. In time you will accumulate a highly useful index card system for your darkroom. Because the complete page is to be removed, there is little defacement of the magazine.

In the next few months you'll find formulas for developers, reducers, intensifiers, toners, time and temperature charts, in addition to ideas such as those which appear in this issue. Within a short time you will be able to obtain through us an inexpensive file and index for these cards, or they are obtainable at low cost at any stationery store. The size is 4 by 6 inches. You'll look forward to receiving these cut-outs in every issue of AMERICAN PHOTOGRAPHY.

(Submit your pet ideas for this feature. We'll pay \$4.00 for each one printed. Entries should be brief enough to fit the card, and should be capable of illustration with one photograph or diagram. Address HINTS DEPARTMENT, c/o AMERICAN PHOTOGRAPHY. Please include return postage, and mark your name and address plainly.)

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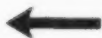
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Planting rice seedlings. Rice is the staff of life in Japan, and much import is given to the rice planting season. Prayers are said to the gods in hopes of securing a good crop.



Rambling with *Jeep and Camera* in Japan

by Harry E. Pierson

WHEN AN AMERICAN civilian reports into military government service in Japan, he will usually have a camera and some film in the small allowance of luggage brought with him by boat or plane. For it has justly been said that the Americans in Japan regard a camera as standard equipment for any kind of sightseeing, outing, or trip. Another twist on the same theme is that you can always spot someone on a field trip from GHQ by the harness of two cameras and an exposure meter.

The writer exceeded all this to qualify as a real camera nut by arriving in Japan with two good still cameras, two 16 mm movie cameras, and a box camera to fall back on in case the other still cameras were either stolen or out of commission. In passing, it can be said that both of the still cameras were eventually stolen, and still later one of the movie cameras fell into the hands of a thief. But by this time, I had become interested in several Japanese cameras, and had acquired two as standbys, and they came into good use.

So this will be largely the story of an American, his Japanese cameras and a jeep, or the several jeeps more or less the same, that got him around to odd spots in Japan before he ran out his contract as a civilian employee of the army. As this American, I was most lucky to have about half my time, the first eight months, assigned to jobs at GHQ in Tokyo, and the balance assigned to military government work in an area nineteen hours by rail and ferry boat from Tokyo. This latter assignment was on the Island of Shikoku, and in the course of my duties, I made many a trip the length and breadth of the Island by jeep, by train, and by boats that plied the Inland Sea.

But to return to the Tokyo part of my picture-taking activities. It was not long after the time of my arrival that I began to worry about my supply of film because the PX was woefully short on standard sizes, and practically never had color film. In the second year, the situation improved greatly on supply of standard black-and-white film, but color film was as scarce as ever. Anyway, in these early months of 1947 I wrote a letter to my favorite photographic dealer, a personal friend of some years standing, and arranged for a continuous supply of color film in both the 620 and 35 mm sizes, and also for a fine-grain and a very fast film in the 620 size.

These early days found me shooting with a Medalist II while using a Leica for color film only. In the good tradition of GHQ, I was also equipped with one of the best exposure meters. Frequently I used a beach bag for my photographic gear, and in it nearly always was the Bolex loaded with color and the turret Filmo loaded with black and white. And I regret that I did not take more movies as these films now are in demand for use in television broadcasts, and on a rental basis. I would still have the film.

Upon first arriving in Japan, the color on all sides is so striking that a color-camera bug is apt to be overwhelmed. He has to say to himself, "Now, calm down. You'll be here a while. Color film is hard to get. Make your shots count".

One cannot be in Japan very long, no matter what season, before there is some sort of a festival, celebration, or parade. The coming of "Boy's Day" is heralded by big paper streamers in the form of fish flying above the homes of families having boys. There is one big colorful streamer

for each boy. This is the first big celebration on which I took a series of shots in 1947. A couple of us loaded into a privately owned jeep and just toured aimlessly around the city and took pictures as we saw them. My friend was a Nisei, or Japanese-American, employed by GHQ, so I was able to pick up from him some sidelights on the happenings. In many cases groups of boys were carrying platforms upon which there were exhibits, or in some cases other boys were performing on top of the moving platforms. More than often the boys carrying the platform and those performing on it were worked up into an emotional state that bordered on mass hysteria. I was to encounter this many a time in other celebrations of the Japanese, and gradually came to know it as characteristic—a sort of letting off of emotional steam.

When we took pictures there was not the slightest objection, and in a few cases the boys maneuvered a bit to get themselves in the camera eye. Mostly, however, the boys were not concerned with bystanders or spectators and pushed on obsessed with their own mass feelings. They were undoubtedly more or less conscious that they were creating a public spectacle, and perhaps wanted it that way. To me it seems that the exhibitionist tendency of the Japanese bursts into full flavor during these times of celebration and festival.

With very few exceptions, the Japanese during my entire tour of duty were inclined to be co-operative on picture taking. Americans in Japan get to a point where they accept the Japanese willingness to pose or perform as a matter of course. It might be said in passing that small presents such as a couple of cigarettes are commonly passed out. And not only does a Japanese like to get these hand-outs, but it often lifts him in the estimation of friends and bystanders to get this attention, and small gifts, from an American. Children and especially half-grown boys are most eager to manage something with picture-taking Americans, but they almost invariably "mugg" and otherwise carry on in an artificial way that ruins the chances of getting worthwhile shots.

One of the highlights of picture-taking jaunts in the Tokyo area was a trip to a nearby village during the rice planting season. This was arranged through a Japanese physician who held a post as community doctor for the village. Another American had been the prime mover in managing all the preliminaries, and besides me, he had invited Dimitri Boria who was in charge of GHQ's color lab in Tokyo. At my suggestion, we took along a very competent Japanese photographer named Okada.

It was a brilliant, clear day the Sunday we made the trip. By the middle of the forenoon, we were at the village office, and had gone through the formalities of meeting and having a cup of tea with the two village officials who had been awaiting our arrival. The Japanese physician spoke excellent English, so we were able to get exact shades of meaning as we asked for information on the life of the village and the import of the rice planting season. Because rice is the staff of life and means so much in Japan, the time of planting is of great personal, and shall we say, spiritual significance. All sorts of homage and reverence is paid to "the gods which bring good growing and bountiful crops," so as to conjure up favorable omens for the coming rice season.

Work in the rice fields was going forward on a sort of a community basis with everyone caught up in the spirit of the thing. It reminded me in a way of our own rural

America's house-raising events. The whole job was being accomplished by everybody working with a will and sensing a joyous finishing of the job only a few hours away. As usual in Japanese events of this kind, the children were on hand. In many cases they were doing useful jobs of one kind or another. All of the workers and the children knew of the coming of the American photographers, and were agog because their village had been selected. Also I am sure many were looking forward to small gifts of one kind or another which were sure to be coming up. My American friend who rigged up the party had a pocketful of assorted candy bars; we all had extra cigarettes to give out at appropriate occasions during the day.

The rice paddy fields were typical of the well-established villages where improvements and intensive cultivation had been going on for years and perhaps for centuries. We tramped along the paths on the top of the raised walls of the paddy fields, and took picture after picture of the Japanese villagers, men and women both, working in the muck and water. There was a sort of rhythm and zest in their hand-planting of the healthy young seedlings. The spirit was very infectious; we felt good about it and joined readily in the high spirits that abounded. It was possible to get a variety of angle shots from the criss-crossed footpaths. In the area of the storehouses and courtyards, odd jobs were going forward. With all of us busily clicking shutters, we thoroughly documented life in that village during the rice planting season in the spring of 1947.

When my duties in Japan changed in the late summer of 1947 to a military government assignment on Shikoku, it was like entering a new world. The big city with its teeming life and nervous energy was left behind; there was little cosmopolitan or metropolis-like in the life of the people on this Island. About 55 per cent of the population lived in rural communities or on the farms, and there were thousands of people who either were fishermen or made their living in some pursuit connected with the sea and waterfront. The contrast with Tokyo was sharp and exciting. It brought me picture-taking opportunities that only a few Americans were ever fortunate enough to encounter over an extended period of time.

Typical Japanese festival celebration
Photo by S. Okada, Tokyo



The panorama of the Inland Sea to the north of Takamatsu, the seat of military government on Shikoku, was a never-ending wonder. Several times I made the trip by boat along the Inland Sea lengthwise to the westerly city of Matsuyama. Some of the most gorgeous scenery in all Japan unfolds as the boat skirts along the north shore of the land of the four countries, as Shikoku translates and is commonly known. Later, Americans were not allowed to take this boat trip due to the hazard of floating mines which at some time or another in the late war years had broken away and afterwards had escaped the many sweepings undertaken to gather them up.

Another trip commonly made by military government personnel in Shikoku was across the Island by rail to the southerly city of Kochi. In this part of the Island, sometimes called the fourth country of Shikoku, the inhabitants held themselves as a different strain of people from those that lived up in the Inland Sea area. The natives liked to consider themselves a more rugged stock and a harder people, just as the Western plains people of our own United States consider themselves a rougher, readier bunch than the effete, more subdued people that live in the East. The train trip across Shikoku the North-South way is a memorable one for several reasons. One is the scenery. The gorges and mountains compare with some of our most breath-taking scenery in America. Another is the 103 tunnels through which the train passes, and the clouds of coal dust that come as an ordeal with each tunnel. At the end of the trip, the passengers are invariably more black than white, and it is quite a job to get that accumulation of coal dust out of the hair, nose, and ears. The only answer for clothes is the laundry.

By the time I had come to Shikoku, both of my still cameras had been lost when a beachbag and its contents were lifted out of a presumably locked automobile. Luckily, I had standard camera insurance, so there was a reimbursement. No one should think of trying to get by in Japan, or most any other foreign country, without insurance on cameras and other photographic equipment.

Since Japanese cameras had come to my attention in Tokyo, I made it a point to look at pictures taken by Americans who had bought such cameras as the Canon and the Mamiya. The Canon is the Japanese copy of the Leica, and

the Mamiya is a copy of the Super Ikonta B. In talking about these cameras, the consensus of opinion was that the lenses were not as high quality as the German lenses, and that a really good shutter was impossible because the best spring steel for making critical parts was not to be had in Japan. However, for the prices at which these cameras could be bought, they were regarded as real bargains. I was inclined to agree, and set about getting me one each of these two cameras most popular with Americans.

The standard way to get these cameras was by making an application for one from an allotment which was set aside out of current production to sell to members of the Occupation. It seems some arrangement had been made early in the Occupation whereby makers of these two cameras were signed to a contract which guaranteed a continuous supply to meet the needs of picture-taking Americans, British, and other Occupation people. From the beginning the demand had always exceeded the limited number which were available, so it meant waiting. I made formal application for a Canon and a Mamiya at about the same time, early in 1947. In about six weeks I was able to go around and get the Canon. It was three months before my turn came to pick up the Mamiya.

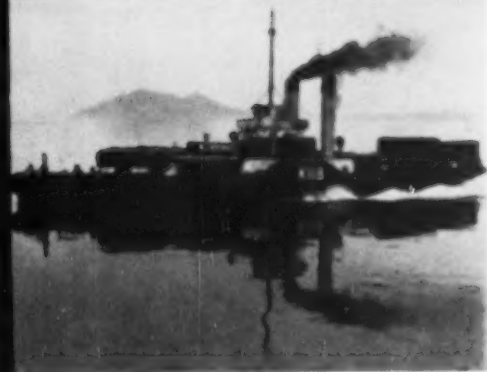
As I was waiting for these cameras, I altered my arrangements for the supply of film from Los Angeles. I added No. 120 Ansco Color and a small monthly quantity of No. 120 black-and-white film. My experiments with Japanese film had not been satisfactory, and the prices were not cheap either. This was in contrast with the prices of the two cameras. The original contract early in the Occupation made for an extremely low price to buyers who made out formal applications and waited. Shortly after I got my cameras, prices were hiked up by mutual agreement as the general level of prices in Japan had greatly increased, and kept on rising along with the creeping inflation that was settling on the country.

My time in Tokyo was short after acquiring the Japanese cameras, so it was down in Shikoku where I really got into the swing of using them as every day picture-taking equipment. They proved durable, highly useful cameras. I used the Canon exclusively for color, and took hundreds of shots, using both Kodachrome and 35 mm Ansco Color Film. The Mamiya was my work-horse camera, as I was constantly using it. The flash equipment of the Mamiya which I originally bought was later changed and modernized. However, I was able to get a special electric-transformer device for setting off the flash, and used it successfully on a number of indoor shots. The Ansco Color came out beautifully in the Mamiya. Later I was sent some No. 120 Ektachrome by my dealer friend, and had the same good results. But I might say at this point that I would much rather have taken pictures during this period with the Medalist II and the Leica.

Shortly after arriving in Shikoku, I went on a trip to the southern part of the Island, and in the course of the general look see I was making, got up into the high mountains for the purpose of inspecting a mine. Three of us who were Americans connected with the military government, and a Japanese interpreter, started out by jeep early in the morning. The route took us along the edge of the gorges and passed through many a rustic hamlet. It was amazing to me how some of the houses, which were insubstantial to say the least, were built out from the side of the road over the gorge. They were supported by timbers propping them up more or less in mid air. Southern Shikoku is noted for

Line of fishing boats, Tokushima





Side-wheel ferryboat plying inland sea.

earthquakes and it seemed to me a little tremor would send the house and its occupants hurtling down into the gorge. But life is abundant and cheap in Japan.

By eleven o'clock we reached the point where the jeep was to be left behind. Arrangements had been made to stop overnight at a Japanese-style hotel that had been used not long before by the top British officer of the area as a headquarters for fishing and hunting. We left the jeep driver behind and shouldered knapsacks to trudge down into the bottom of the river gorge. After we had shot a few pictures of the canyon and the remains of a washed-out bridge, a native ferryman took us across in a small flat-bottomed boat. On the other side was a small bus station which was the end of the line. We boarded a bus and after about a fifteen-minute ride dropped off and began a long climb up the side of the mountain. About half way up we were met by some officials who had come down as a welcoming party. The bus dispatcher at the end of the line had telephoned them that we were coming. The operations manager, who was in the party meeting us, was lame. We found consolation in the thought that if the old Japanese with a lame leg could make that climb without difficulty, so could we. Other members of the welcoming party took our knapsacks, so the going wasn't bad. However, we were glad to rest and have the inevitable cup of tea when we arrived at our destination.

Officials and others at the mine were delighted to have pictures taken, and were flattered when the executive group was asked to join us in a group picture. The community operated with no supervision or assistance from any formal Japanese government. There were no policemen, judges, or other officials than those appointed by the mine manager. The schools were all a part of the mine setup and had teachers paid by the management. Many of the families in the community had little farms, and some were terraced out of the side of the mountain in odd-shaped patches. Mine operations had been slowing down because good ore was running out, but all employees were kept on the payroll just the same. The management was trying to develop side-lines, such as the production of talc, to keep their people busy. There was a big demand in Japan for talc as the substance is commonly used as the base for DDT powder. Much talc was exported, and as the drive was on to increase the volume of export items, a lot of attention was given to the possibilities of new deposits where the rock was above ground and of good quality.

As usual the Japanese were bountiful in their hospitality, and we were late in getting away from the mine. By the time we reached the river, it was dark. But the Japanese boatman was waiting, and we no sooner got started than a flaming torch was visible on the other side. Our jeep driver also had been waiting, and he lighted a tall, dry

piece of brush and held it at the water's edge to guide us to our landing. The next morning was brilliant and clear in the village, and we managed quite a few pictures as we made the rounds calling on various Japanese officials. The trip back was a sort of anticlimax, but at that I felt conscious of the fact that here was some of the most exciting scenery in all of Japan.

Toward the end of my tour of duty on Shikoku, I had a trip which took me along the eastern coast, south of Tokushima. This time there were three of us from the military government including a Japanese-American who was not only a good interpreter, but a competent employee of the Occupation, working with agriculture and fishing. He had been in the army and had transferred from his GI status to a civilian job when it came time for his discharge in Japan. The object of the trip was to get a line on the progress of the fishing industry and to check into the organization of new farm co-operatives. This gave us unusual opportunities to take pictures as we prowled around the fishing wharves of the small villages up and down the coast. It was the dull season for a good catch, so many of the fishermen were doing odd jobs around the villages.

In checking into the farm co-operatives, we found a surprising number of farmers were also fishermen. Each community usually had a head office for the farmers' association, and a warehouse or two. In the Japanese style, there were plenty of children around. Taking pictures of children is one of the easiest things to do in Japan, but getting good pictures of children is one of the hardest things.

My cameras were always of interest to Japanese, and I often encountered good photographers who would make overtures in trying to be helpful. If given a chance, these Japanese photographers would go all-out in trying to arrange things, and otherwise participate in the photographic activities of Americans. This was usually a rewarding experience for the American, and also for the Japanese. They were always eager to accept a roll of film, and especially color film, to try out in their own cameras. Many of the best Japanese photographers used quality German cameras and turned out very superior pictures. The feeling of Japanese photography is quite a good deal different from that of most Western photography, and an American coming into contact with these photographers and seeing their pictures, gets to know the feeling. This is a rich cultural gain for a person coming out of the Orient with only a limited tour of duty behind him. Everyone who is interested in photography should try to see Japanese things when opportunity presents — perhaps in a salon, or in the pages of some publication.

Preparing paddy field.





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Top photographs and remarkable animal training are combined in the unusual "Aesop's Fables" series produced by Mr. Chace for Encyclopaedia Britannica Films. At the left is Lynwood Chace with his Bell and Howell Eyema 35 mm. camera. Below, a series of scenes from the old favorite fable about the fox who invited the stork to dinner. The fox served soup in a flat dish and of course the stork could not partake. However, the stork turned the tables by inviting the fox for a meal. The pictures tell the story!

Filming Aesop's Fables

by Lynwood M. Chace

Illustrations courtesy Encyclopaedia Britannica Films

THE ACCOMPANYING ILLUSTRATIONS were made while I was filming three 400-foot rolls of 16 mm sound film for Encyclopaedia Britannica Films Inc., through whose courtesy they are reproduced herewith. These three films covered respectively Aesop's fables of the hare and the tortoise, the fox and the grapes, and the fox and the stork dining together. They are to be used for educational purposes.

Making the films entailed very amusing contacts with the animals, and some photographic problems which may be interesting. Animal as well as human actors must look their very best and be trim and alert when appearing in motion-picture plots. This means that special attention must be given to the animals, especially in regard to their diet.

The animals acting in the Aesop's fables films all have a balanced diet so as to keep them in good condition. The daily diet of the fox is beef liver, lamb kidneys, beef, and dog biscuits alternately. At times I also give him cod liver oil which keeps his fur thick and fluffy and gives it a nice sheen. The raccoon's diet is about the same, with fresh fruit and fish for variety.

These pictures were filmed in my outdoor studio especially built for photographing animals under simulated natural conditions. A pond which I

constructed in my studio had all the natural pond growth such as cat-o'-nine-tails, waterlilies, arrowhead, ferns, and swamp grass. Loads of swamp material were brought into the studio to complete the settings for these films. The pond had a stream running into it from water supplied by a large hose connected to the water system.

The animal cages adjoin the studio. The animals when needed can be driven into the studio from their cages through a sliding door. This eliminates any handling of the animals, and avoids getting them excited, which helps greatly when they are brought in to do their act.

To get the animals to perform is a matter of thoroughly understanding the particular nature of each animal. Before working with a new animal I usually let it into the studio, switch on all the lights, which are twelve 1000-watt lamps all told, and then I sit quietly in a corner of the studio and carefully study the animal's reactions to objects about the studio, making notes of any odd things the animals do, and looking over the script to see if some of the unusual traits or actions could be adapted to any of the scenes called for in the shooting script. At this time I also experiment with them with food to find out just what kind of food appeals to them, then by keeping my

(Continued on page 72)



Reducing Matrice Swelling —

(Continued from page 60)

possibility of solvent attack on film support. Experimental work was therefore confined to the use of salt solutions which have been studied extensively for their effects on the swelling of gelatin by workers in colloid chemistry. Sodium sulfate is very effective and appears to introduce no objectionable side effects. In the present work with gelatin matrices it was found that, in order to prevent syneresis and the concomitant exudation entirely, it was necessary that the sulfate bath be near saturation. When this condition was met, the further advantage was gained of shortening the drying time to one-half or less. It is significant that these benefits were obtained even though the shrinking bath treatment was followed by a 10-minute wash in running water to prevent crystallization of the salt on the matrix. The fact that the extreme swelling did not recur at this point suggests that when the gelatin is made to undergo this degree of compacting, a type of spontaneous hardening occurs. This is not hardening of the ordinary type which causes an elevation of the melting point of the gelatin.

This shrinking procedure appears to be quite practical both for preventing the exudation and for shortening drying. As mentioned previously, matrices produced by the hot water etching process ordinarily must be dried and re-wetted before use in dye-image transfer. In some tests on the saturated sulfate bathing procedure, Mr. R. Speck of these laboratories has found that by its use the customary drying operation can be eliminated as a step in the preparation of a matrix for dye transfer use.

Before the saturated sulfate treatment is adopted as a routine procedure in dye-transfer work it would be advisable to determine if, perchance, the observed condition of excess swelling is the result of improper adjustment in the tanning or etching process. Likewise, the decision to adopt this treatment in order to eliminate the drying step would be made only if it was determined that organization of work in the whole process would permit taking advantage of the possible saving of time and handling.

If it is decided to employ the shrinking-bath treatment, the regular procedure should be followed through the hot water etching and cold water rinse steps, after which the matrix should be immersed with frequent agitation in an approximately saturated solution of sodium sulfate for 2 to 3 minutes at about 68° F. Then it should be washed for 10 minutes in running water at the same temperature. Following this, the matrix is ready for the dye bath or for removal of loose water by customary means if it is to be dried.

The anhydrous sodium sulfate ordinarily supplied for photographic purposes can be used. A saturated solution is prepared by dissolving about 25 ounces of the anhydrous salt in 100 ounces of warm water (125° F) and then cooling the solution to the 68° F working temperature after adding a large excess of the solid. The solution can be decanted from the solid for use repeatedly until it becomes dirty or cloudy from protein matter from the matrices. However, after each lot of films which can be immersed at one time has been treated, the bath should be returned to the storage bottle to be shaken or stirred vigorously with the excess salt so as to restore saturation.

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Camera Club Notes—

(Continued from page 61)

New York City, Telephone Camera Club of Manhattan

Club members were guests of the Rockefeller Center Camera Club at its meeting on January 16th. Mr. Sydney Bernard of the Manhattan Camera Club and Mr. David Murray of the Rockefeller Club were speakers at the evening.

Newark, New Jersey, Vailsburg Camera Club

Roy Bohlen of this group had six of his pictures accepted for a total of 19 times in Springfield, Philadelphia, Milwaukee, Reading, Cincinnati, Minneapolis, Chicago, Columbus and Springfield, Ill.

Philadelphia, Pennsylvania, Miniature Camera Club of Philadelphia

On January 12th, the club heard a talk on "Finishing the Picture" by Mrs. Ward C. Goughmour, a member of the York Camera Club. Mrs. Goughmour discussed toning, spotting, mounting and local control methods. Another guest speaker, Mr. Alfred Shelton, a color expert of Ancon, gave an illustrated talk on "Better Color Photography."

Salem, Massachusetts, The North Shore Camera Club

Unusual models, an American Indian couple, featured the meeting of this group on January 12th. The models, Clear Sky and his wife, Morning Star, posed in full costume, and received prints from all members making photographs.

San Francisco, California, California Camera Club

In the recently complete "Print of the Year" competition, E. C. Adams, A.P.S.A., won first prize with his "Lost Horizon." Michael Dale and Emil Hinrichs captured second and third places. Ted Tureman's "The Race" was awarded first place in the "Slide of the Year" competition.

Springfield, Massachusetts, Springfield Photographic Society

A total of 25 prints was selected from various members of the club for their 1950 Traveling Show. Its first stop was at the Firelands Camera Club of Norwalk, Ohio. Prints by A. J. Scott, F. Fowler, L. C. Hinkley and A. G. Workiewicz were selected as best of the show.

Tokyo, Japan, Circle of Confusion Club

Members of this club, all of the Occupation Forces, held an Inaugural and Award Dinner on December 28th. Col. R. E. McGarragh, U.S.A., was elected president. For the best score in monthly competition, Miss Verna Groll won the award for Color Photography, and Mr. W. A. Price won first place in the Color Slide competition.

Washington, D. C., Washington Council of Camera Clubs

Larjachrome, a recent development in color film printing, was demonstrated by the inventor, Norris Cummins, at the last meeting of the National Photographic Society. He showed how a 4 x 5 transparency can be converted into a color print twice the size within 15 minutes.

Book Reviews

PHOTOGRAPHY YEAR-BOOK, 1950, edited by Harold Lewis et al. London, the Press Centre, Ltd., 236 illustrations, 288 pages 7 by 10 inches, cloth bound, \$5.00.

This is a remarkable annual, one of the best without question. Some 80 pages are devoted to pictorial photography of the various countries. There is a rather good color photography section, plus articles on color photography, aerial photography, etc. The engravings are large and the reproduction good. The volume is of high interest to all sorts of photographers. Recommended. — J.C.B.

LIGHTING FOR PORTRAITURE, by Walter Vornburg. London and New York, the Focal Press, 139 pages 6½ by 9½ inches, 245 photographs and 264 diagrams, cloth bound, \$4.75.

The "how-to-do-it" theme never becomes old in photography. This reviewer, for one, welcomes "Lighting for Portraiture" even though the subject is by no means new. This is primarily a handbook. Hundreds of different lighting arrangements are illustrated, and the scheme for showing the placement of various lighting elements is interesting and effective. There is much to be said for the use of plaster manikins in this type of book because variables aside from the lighting are eliminated. The work includes an analysis of several fine portraits by famous photographers, an object lesson in the application of the theories to actual portraiture. It is refreshing that the author has no particular axe to grind, and the subject is quite objectively handled. Amateurs and professionals alike will find this one well worth the purchase price. — J.C.B.

FEININGER ON PHOTOGRAPHY, by Andrej Feininger. New York, Ziff-Davis Publishing Company, 399 pages 8½ by 11 inches, 345 illustrations, cloth bound, \$15.00.

This rather remarkable volume gives us two Feingers: one, Feininger, the educator and Feininger, the arbiter of photography. The effect is rather like a combination of a textbook on photographic fundamentals with his "New Paths to Photography." (American Photographic Publishing Company, 1936.)

As an instructor the author is considerably above average. The text is readable, the material well presented, and excellently illustrated. As a matter of fact, most of the book is instructional, and the advice is quite sound. As a textbook this is one of the best and most complete, even if one is left with the vague impression that photography is pretty much a development of the author.

Going from photographic technique to photographic art, Feininger remains more the conservative than the innovator in the front of the book lead us to expect. The treatment of composition is essentially classical and basic. One wonders a bit why reticulation and "has-relief" produce more artistic results than bromids, but that is of little consequence.

Amateur photographers who aspire to become professionals in commercial photography can well afford to study this book thoroughly. For others, it's a good book to own, especially if you can get it wholesale somewhere. — J.C.B.

Notes from the Laboratory—

(Continued from page 58)

definite, yet it seems to be elusive, somewhat like the visual illusion puzzles which are seen so often. When you look at the image from an angle, the relief suffers or entirely disappears, to be replaced by pseudo relief and again by true relief.

The grid stereograms are accepted most favorably by those who have not seen a modern orthostereogram. Experienced stereographers rarely like the grid type. It has the disadvantage of being a free-vision stereo, and hence ortho viewing and visual isolation are impossible. It also has the disadvantage of a variable degree of relief depending upon viewing conditions. It is most acceptable to those of relatively low stereopsis index. To the spectator of highly developed stereopsis, they are not usually acceptable.

There is no question about the fascination of experimental work with grid stereos, but unless you have plenty of money to spend or have most of the equipment on hand I do not advocate such experimentation. If you have a suitable camera and lens available, you may be able to get out for about one hundred dollars, but if you have to buy camera and lens, add that cost to the one hundred and call the sum the minimum.

For the average amateur it simply isn't worth the cost. Two hundred dollars will place you in possession of a complete, modern outfit for making and viewing orthostereograms of the highest quality, with a portable camera. Why indulge in a huge 8 by 10 view camera, a gigantic and heavy lens and a tripod capable of supporting it, in all close to fifty pounds, and then obtain only inferior results? For the amateur, at the present time at least, grid stereo is only a costly experiment. Later, if some of the promised small cameras come out, it will be a different story, but for the present, my advice to the amateur who wants to experiment with grid stereos, is — don't.

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Filming Aesop's Fables—

(Continued from page 70)

animals on the hungry side until after the scene is taken, I can readily get them to do their best in acting by baiting them with their favorite food. For instance, I found that the fox relishes beef liver, so when I wanted to get him to jump for the grapes I attached a piece of beef liver to the end of a string and then led the string through screw eyes to the camera where I was stationed, and by pulling the string I could hoist the beef liver up into some camouflage behind the cluster of grapes. The fox, naturally, smelled the liver and made attempts to get it, and I obtained successful movie takes of the fox jumping up for the liver. But this scene, when viewed on the screen, appeared as though the fox were jumping up trying to obtain the grapes. Most everyone is familiar with the story (Aesop's Fables) of how the fox finally gave up and said he did not want them anyhow, because they were sour grapes.

In the scene where it was necessary for the hare to run a distance ("The Hare and the Tortoise") this could not be worked out with the same method, because I discovered that I could not bait the hare from one location to another, so I had to resort to frightening him in order to get him to run. I had to try a number of things without success, but eventually discovered that shaking a branch of dry leaves would cause the hare to run, so from then on the hare racing scenes were obtained by this method.

The great horned owl proved to be a very good actor. In the picture "The Hare and the Tortoise" the owl played the part of the judge. It was very important that he observe the race closely, which he did very impressively. At the end of the race the owl was to judge the winner, and at the proper

moment when the tortoise crossed the winning line the owl turned his head with such an effect and manner that you could almost hear him say, "The tortoise wins." When the owl was placed in his position on the set he would remain there all day without attempting to leave.

The tortoise (the star of this picture) was a very persistent creature, and although very slow moving, would take a lot of hard going before losing courage. I made the course she traveled just as difficult as possible to emphasize the fact that in spite of all, she won the race.

The raccoon, which proved a most curious animal, worked into the picture nicely and did some fine and spontaneous acting, such as biting the sleeping hare in playful pranks, and waking the hare to make him continue the race.

The equipment used for photographing this movie work is a 35 mm Bell & Howell Eyemo camera with 110-volt motor and a turret holding three Carl Zeiss lenses—a one-inch $f/3.5$, a 2-inch $f/2$, and a 4-inch $f/2.7$. The camera is also equipped with a reflex focusing device and sliding head for parallax adjustment, and a 400-foot magazine. The type of film used in this work is 35 mm Dupont Superior No. 2. I usually shoot about 1200 feet of film in making a 400-foot 16 mm reel.

To obtain the still pictures of these movie scenes I use a 4 by 5 Speed Graphic with Carl Zeiss $f/4.5$ lens. For lighting I use a double-flash strobo studio job combined with a portable Everflash battery unit. The Everflash fires the two studio flashes, making three flashes fired at once, with the shutter tripped by a solenoid. The stills were taken at $f/11$, shutter speed 1/50 second, subjects in most cases ten feet from the camera. The film used for the stills was Super Panthro-Press Type B.



Above, an illustration from the fable of the fox who, when he was unable to reach the grapes, decided that they were sour and he didn't want them anyway.



Above, another old favorite story. This one is about the fox who flattered the crow by telling her how beautifully she sings. When the crow opens her beak to sing, the cheese drops to the ground and the fox has it. Left: the slow moving tortoise passes the hare while the latter, filled with self-confidence, has a nap for himself.



Forthcoming Exhibitions

The following announcements are often based on communications from salons or their sponsors, sent to us before the entry blanks are available, and it frequently happens that important changes occur after the original announcement is published. Therefore, intending exhibitors should, if possible, secure entry blanks before sending prints. Announcement of an exhibition does not necessarily mean that it conforms to the rules of the Photographic Society of America, or that it will be listed in *The American Annual of Photography*.

The 1950 Shropshire Salon of Pictorial Photography. Entries close February 8, 1950. Entry fee, \$1.00. Limit, four prints, monochrome or color. March 11 to April 1, 1950. Information from Mr. A. C. Wace, Chairman, Salon Committee, Shropshire Photographic Society, Greyhound Chambers, Butcher Row, Shrewsbury, Shropshire, England.

Second International Photographic Fair and Exhibition, Leeds, England. Entries close February 9, 1950. No entry fee, but return postage must be sent with entry blank. Limit, four entries in one or more sections. Black-and-white, color and cine films sections. March 16 to 30, 1950. Information from The Organizer, Mr. J. J. Mather, International Photographic Fair and Exhibition, Y. E. News Buildings, 13/17 Trinity Street, Leeds, England.

The Fourteenth Rochester International Salon of Photography. Entries close February 10, 1950. Monochrome or color prints and color transparencies in the following sections: Pictorial, Nature, Press and Documentary. Entry fee, \$1.00 each section. March 3 to April 2, 1950. Information from Mr. David F. Adams, Exhibit Director, Memorial Art Gallery, Rochester 7, New York.

The Ninth Montreal International Salon of Photography. Entries close February 13, 1950. Entry fee \$1.00. Limit, four monochrome prints plus four color prints (hand colored not accepted). March 10th to April 2nd. (No entry fee required where governments prohibit export of funds.) Information from the Art Association of Montreal, 1379 Sherbrooke Street West, Montreal 25, Canada.

Fourth Great Falls Salon of Photography. Entries close February 15, 1950. Entry fee, \$1.00. Limit, four prints. March 4 to 12, 1950. Information from Miss Elwis Cahalan, Box 1997, Great Falls, Montana.

The 19th Annual Boston Salon of Photography. Entries close February 19, 1950. Entry fee, \$1.00. Limit, four prints. March 19 to 26, 1950. Information from Mr. Richard C. Cartwright, Salon Chairman, 87 Washington Street, Milton 86, Massachusetts.

5th Annual Pittsburgh Salon. Entries close February 22, 1950 for prints; March 1, 1950 for color slides. Entry fee, \$1.00 for set of four prints or four slides. March 17 to April 16, 1950. Information from Mr. Karl S. Leach, Secretary, 92 Estrella Avenue, Pittsburgh 11, Pennsylvania.

Sixth San Francisco International Color Slide Exhibit. Entries close February 23, 1950. Entry fee, \$1.00. Limit, four 2" by 2" slides. March 11 to 18, 1950. Information from Walter F. Sullivan, 351 Turk Street, San Francisco 2, California.

Second Annual Kalamazoo International Salon of Photography. Entries close February 27, 1950. Entry fee \$1.00. Limit, four monochrome prints. March 12th to March 26th. Information from James D. Bobb, Jr., Chairman, 119 North Rose Street, Kalamazoo 12, Michigan.

The Fourth Annual Greater Iowa Photographic Contest. \$300 in cash prizes for outstanding photographs of Iowa. Black and white prints and color transparencies. Print competition is divided into amateur and professional classes, but color slide class is open competition. Entries close February 28, 1950. March 7 to 20, 1950. Information from Iowa Development Commission, 708 Central National Building, Des Moines 9, Iowa.

Eighth International Salon, Charleroi. Entries close February 29, 1950. Entry fee, \$1.00. Limit, four prints. April 23 to May 7, 1950. Information from Mr. R. Populaire, 18 rue J. Destree, Charleroi, Belgium.

1950 International Exhibition of Photography, Solihull. Entries close March 8, 1950. Entry fee, \$1.00. Limit, four prints. April 9 to 19, 1950. Information from Mr. Donald Allen, Hon. Exhibition Secretary, The Solihull Photographic Society, 698 Warwick Road, Solihull, Birmingham, England.

Sixth International Salon of Photography, Norton-On-Tees. Entries close March 11, 1950. Entry fee, \$1.00. Classes for portraits and figure studies, landscapes and general subjects, and color transparencies. April 8 to 15, 1950. Information from Hon. Salon Secretary, J. T. Marriott, 5 Grosvenor Road, Stockton-on-Tees, England.

Second Washington, D. C. International Salon of Photographic Art. Entries close March 15, 1950. Entry fee, \$1.00 for four prints, \$1.00 for four slides. April 2 to May 7, 1950. Information from Mrs. Lee Beizer, 3119 Second Street, North, Arlington, Virginia.

The Fourteenth South African Salon of Photography, International. Entries close March 15, 1950. Entry fee, \$1.00. Limit, four prints. May to July, 1950. Information from Salon Secretary, P. O. Box 7024, Johannesburg, South Africa.

The Thirtieth Annual Competition of American Photography and The American Annual of Photography. Entries close March 15, 1950. Black and white and color prints eligible. Thirteen cash prizes in regular competition and six cash prizes in the color competition. Total prizes, \$1275. Will be judged in April, 1950. Information from American Photography, 607 Guardian Building, St. Paul 1, Minnesota.

Third National Salon of Photography, Charleston, S. C. Entries close March 15, 1950. Entry fee, \$1.00. Limit, four monochrome prints, or four 2 by 2 color transparencies. April 3 to 14, 1950. Information from Mrs. R. M. Falley, Salon Chairman, Gibbes Art Gallery, 135 Meeting Street, Charleston, S. C.

Seattle International Exhibition of Photog-

raphy, 1950. Entries close March 15, 1950. Entry fee \$1.00. Limit, four prints, no slides. P.S.A. rules. April 5th to May 7th. Information from Ray B. Pollard, Secretary, Post Office Box 665, Seattle 11, Washington.

Handsworth Photographic Society International Exhibition, 1950. Entries close March 16, 1950. No entry fee, but return postage must be prepaid. Three classes, pictorial prints, monochrome lantern slides, and color transparencies. Limit, four pictorial prints, six lantern slides, six color transparencies. April 20 to 29, 1950. Information from Mr. James T. Parry, Hon. Secretary, Handsworth Photographic Society, Exhibition Hall, c/o Caretaker, 9 Wreatham Road, Handsworth, Birmingham 19, England.

First Southgate International Color Slide Salon. Entries close March 18, 1950. Entry fee, \$1.00. Limit, four slides 2 by 2 inches, or 3 1/2 by 3 1/2 inches. April 17 to 29, 1950. Information from Mr. W. J. Linhard, Hon. Salon Secretary, 2 Dennis Parade, London, N. 14, England.

Third International Salon of Speleological Photographic Art. Entries close March 20, 1950. Must be speleological subject. Entry fee 25c per picture up to \$1.00. Monochrome or color slides. No limit on number submitted. Information from Mr. Howard Watkins, c/o Fuller and d'Albert, 815 Tenth Street N.W., Washington, D. C.

Fifty-first Annual Photographic Salon. Entries close April 5, 1950. Entry fee \$1.00. P.S.A. recommendations followed April 16th to May 14, 1950. For information write Bradford Brown, Secretary, 111 Hight Street, Portland 3, Maine.

Fifth Annual Kappa Alpha Psi International Collegiate Photography Contest. Entrant must be accredited college or university student. Prizes to be announced later. Classes: News, Sports, Feature, Pictorial, Industrial. Closing date April 30, 1950. For information write George Morgan, Secretary, 18 Walter Williams Hall, Columbia, Missouri.

International Exhibition of Photography, Preston. Entries close April 28, 1950. Four sections, monochrome prints, color prints, monochrome slides, and color slides. May 19 to June 3, 1950. Information from Mr. C. A. Lewis, Hon. Secretary, 71 Connaught Road, Preston, England.

Ninth Cincinnati International Salon of Photography. Entries close May 12, 1950. Entry fee \$1.00 each section. Limit, four monochrome prints, four color prints, or four transparencies. June 1st to June 15th, 1950. Information from H. G. Balthasar, Chairman, 6541 Elwyn Drive, Cincinnati 36, Ohio.

Twelfth International Salon of Nature Photography. Entries close May 13, 1950. Entry fee \$1.00 in each section entered. Sections: Animals, Birds, Plant Life, Scenery, Miscellaneous. May 16 to June 15, 1950. P.S.A. rules. Information from HOBBIES, Buffalo Museum of Science, Humboldt Park, Buffalo 11, New York.

International Exhibition, Edinburgh. Entries close July 1, 1950. Entry fee, \$1.00. Limit, four prints. August 20 to September 10, 1950. Information from The Exhibition Secretary, Edinburgh Photographic Society, 16 Royal Terrace, Edinburgh, Scotland.

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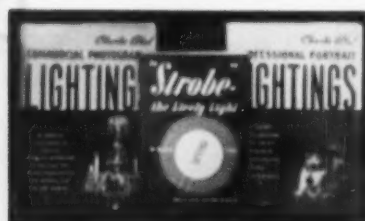
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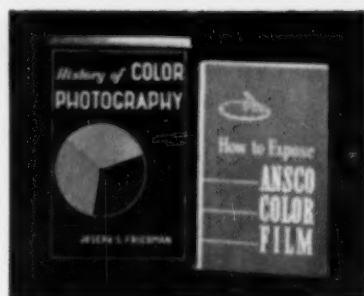
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GLAMOUR GUIDE. *Engene M. Hansen*. See page 1.
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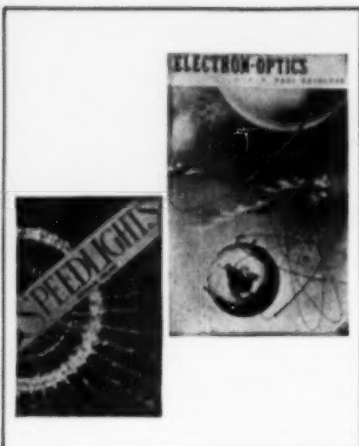
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SNAPSHOTS - CANDIDS - BATHING BEAUTIES - PIN UPS
PORTRAITS - PUBLICITY - FASHIONS - FIGURE STUDIES
LIGHTING - MAKEUP - PROCESSING - SELLING PICTURES

Girls and women want pictures that flatter them! You can follow the professional methods which produce the best possible pictures of every subject — whether she's a model, your girl friend, wife, or mother-in-law. GLAMOUR GUIDE is completely practical. You can follow the complete instructions and obtain pictures which compare with the best of Hollywood's glamourizers. Illustrated with over a hundred large photographs by this outstanding photographer of girls. Large size, deluxe binding. You'll be proud to own the GLAMOUR GUIDE.

Eugene M. Hanson describes in entertaining style the methods which he uses to produce glamorous photographs. Directions are very complete. Numerous complete lighting diagrams. Emphasis is laid on the psychology of photographing girls, highly important to obtaining effective results. Since girl pictures are highly prized for advertising and publicity, this field of photography is an ideal way

Glamour Guide

— How to Photograph Girls

by Eugene Montgomery Hanson

\$5.00

CONTENTS

FIFTEEN VALUABLE CHAPTERS: I. Snapshots Come First. II. Don't Be Too Candid. III. Flash and Filters. IV. Bathing Beauties. V. Pin-Ups and Publicity. VI. Nudes are Kinky. VII. The Fashion Touch. VIII. Preparing for Portraits. IX. Relax and Enjoy It. X. A Plan for Posing. XI. Light Makes Right. XII. Multiple Flash. XIII. The Magic of Makeup. XIV. Darkroom Details. XV. Turning Professional. 109 photographs, 17 lighting diagrams, 210 pages, heavy book stock and excellent reproduction. Deluxe cloth binding. Illustrated two color jacket. Contents suitable for all photographers from beginners to professionals. A fine gift item for anyone interested in photography.



to enter professional ranks. Practical reading on make-up, posing, lighting, dark room technique, equipment, and everything else you need to know about the subject. An excellent manual for professional photographers who want to improve their technique. Yet it is invaluable to the casual snapshotter who wants to get better pictures at the beach this summer. For every photographer, THE GLAMOUR GUIDE, 210 pages, 7 by 10 inches, handsome cloth binding, \$5.00.



RIGHT: It takes more than a beautiful model to make a glamour shot. Proper methods bring out the attractive features of every woman. You can make interesting and profitable photographs by following the methods used by Eugene Hanson to glamorize Hollywood's beautiful girls. Get your copy now.

LEFT: Note how makeup erases freckles and other blemishes. Little or no retouching needed. GLAMOUR GUIDE gives complete instructions on makeup and other important subjects. Every woman is a potential beauty in the lens of the glamour photographer. Read GLAMOUR GUIDE for better pictures.

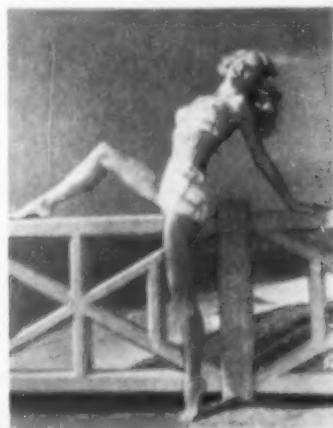
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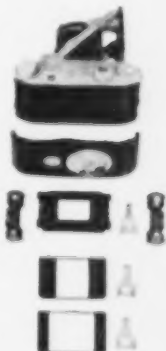
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